Dimensions of Embodiment:

Towards a Conversational Science of Human Action

A Thesis submitted for the degree of Doctor of Philosophy

by

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Dedications

To Catherine and Kenna,
whose loving patience gave me the freedom to pursue this work,

To Dee and Catherine,
whose deep hospitality made it possible to do it in the right place,

To Laurie and Sheila,
whose challenging and supporting questions drew me towards what I really wanted to know,

And to the students,
whose experience much of it is about.
Abstract

George Kelly’s Personal Construct Theory, especially as subsumed within the “conversational science” paradigm developed by Thomas and Harri-Augstein, is fundamentally a framework for a geometry of personal meaning in which all of the dimensions of distinction within a person’s experience are like the dimensions of geometric space. A person’s system of constructs is not just a framework for predicting the attributes of future events; it is a coordinate system for navigating the dimensionality of experience. The work of F.M. Alexander is primarily concerned with the “psycho-physical unity of the individual,” and thus with the continuity of experience.

The present work has two aims. The first, drawing on the work of Merleau-Ponty and John Dewey, and culminating in the concept of “Conductive Reasoning,” is to lay a theoretical foundation for a synthesis of the practical work of Kelly and Alexander. The primary premise is that the act of comprehending is an embodied act, and as such is as subject to the conditions of the coordination of the whole person as is any other act.

The second, practical, aim has been to develop a conversational methodology for dealing with learning in a more fully embodied way. This method of “conductive conversation,” formally derived from the “Learning Conversation,” evolved from the author’s teaching experience with the Alexander Technique.

Appendix 1, “A Conversational Introduction to Conductive Reasoning,” is an interactive conversational structure which incorporates a development of these concepts in the context of personal experiments for generating the kinds of experiences from which the reader may draw something of the intended meaning, and some skill in using the conductive conversational tools for exploring embodied dimensions in their own meaning. It is intended as a piece that will stand on its own as a conversational research instrument for personal scientists.
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Chapter I

1: MOMENTS OF INERTIA: A PERSONAL PROLOGUE

1.1 Memoir of an Erstwhile Physicist

I begin with the fundamental assumption that all meaning is personal—and that what is called knowledge is always a product or representation of someone’s personal knowing. Thus a personal prologue is an appropriate starting place. My own story as a scientist began when, at the age of six or seven, I decided that I would grow up to be a physicist—a nuclear physicist, as I recall, because all I understood of what that meant at the time was that they were interested in the fundamental elements of reality. As it happened, I left physics behind after earning my degree because, as I joked at the time, I no longer believed in atoms, and have spent much of the time since trying to find my way back. Now, looking back over forty years, I find that for me “physics” has come to mean something far more intriguing to me than either the boy of six or the student of twenty-one could have imagined. During the years I have thought of as a frustrated struggle to become the scientist I had imagined, several strands of study and practice have braided together into a pattern. I take as my present task to delineate and elaborate that pattern.

From the earliest days of my contact with physics and mathematics, I found myself involved with one-on-one tutoring of other students who found the subjects difficult, or with teaching classes for students whose interest in physics was broader and less intense than that of physics majors. From the beginning I found myself as fascinated by how people understood physical phenomena as I was by the physics itself. Indeed over time I came to believe that just such personal understanding is what constitutes “physics”—that is, that the central subject of physics is not so much the material world as our comprehension of it, and thus that a fully unified physics is not possible unless it includes some reflection on the nature of how we comprehend our world. In my own case, while I worked at mastering the official paradigms of physics and their associated skills, I also had the good fortune to be subject to a good “Jesuit education.” I was able to pursue expanding interests in, among other things, philosophy, history and theatre. In particular it was at that time that I first encountered the phenomenology of Maurice Merleau-Ponty and what I would call the cognitive ecology of Gregory Bateson. I found in them an articulation of what were becoming my personal research questions. Ironically, the area of physics in which I had the easiest academic success as an undergraduate was nuclear physics, ironic
because it was just at this time that I began to find the wider questions beneath those I had glimpsed when I first chose physics as my field.

After a short tour with the Peace Corps teaching junior secondary school in Fiji, I embarked on graduate work in biophysics. My choice was, I now believe, largely an attempt to blend my primary interest in the whole human individual with my desire to think of myself as a physicist. I found, however, that although I wanted to claim that my personal questions were essentially “biophysical” they did not fit into the construction of biophysics current at the university. My self-assessment was that I was a person with a great conceptual ability that was not being supported. This unsupported ability was combined with mathematical skills that were insufficient to take me as far as I wanted to go. I thus embarked on my long quest for what seemed to be a non-existent discipline in which I might work—and for a paradigm in terms of which I could make sense of the many threads of meaning I was finding. In whatever academic guise I wrapped it, the field I was attempting to pursue was a sort of personal anthropology in which concepts played the role of the artifacts that reveal the underlying structure of a culture. From the level of the development of personal understanding to the social level of how common understandings evolve and how they underlie collective social action, I kept finding a kind of structural continuity of relationship between thinking and acting. It was early in this period that I first encountered the work of the two most central contributors to my current view, George Kelly and F. Matthias Alexander. It was to take me a number of years before I came to recognize just how central.

I want to give an account of each of these major tributaries to my present work, but first it is relevant to point out that interspersed with periods of academic work there were important periods of teaching work, in both classroom and tutorial settings, and the experience I gained from that practice was at least as significant as anything I gained from my academic study. One event in particular seems, in one stroke, to have undermined all my efforts to follow the path I thought I was on and at the same time to have held open a new (or perhaps a much older) path. I met and began studying with Marjorie Barstow. Ms. Barstow had been, in 1934, the first graduate of F.M. Alexander’s training course for teachers of his technique for what he called “psycho-physical reeducation.” He had developed the technique, now commonly referred to as the Alexander Technique, to put into practice what he had discovered about whole human functioning. In the 1970’s Ms Barstow was a pioneer in working with Alexander’s ideas with groups of individuals and applying them in the context of a person’s personal activities, from “performance” activities such as playing a musical instrument, singing, dancing, etc. to such “everyday” activities as
walking, writing, and reading. My "training" with Ms Barstow was not in the mold of the usual Alexander Technique training. As a student, assistant teacher, and eventually coordinator of her summer intensive workshops, I had much more of a classical apprenticeship in which most of my time with her was spent observing her work with hundreds of other people. As the quality of my own self-perception improved, so did my ability to see, and eventually to anticipate what she did with other students. I remember discovering that as I progressed I became better able to guess what she was going to do next and to understand why she had made that choice. I also recall the sense of independence I had as I became able to anticipate and appreciate what she did with a student and at the same time know that had I been teaching I would have made a different choice, and further that for me, I would have been correct in doing so. Although it was outside the scientific and academic realms, I found in this work the beginnings of the new sort of biophysics of the whole person that I had hoped for. I gradually, almost reluctantly, became a teacher of the Technique myself, all the while fully expecting that my "real work" lay elsewhere. Eventually I was to learn that the way into that real work was to be found through rather than beside my teaching work. I had come to my first workshop out of curiosity rather than a need to solve a problem, and as my own teaching progressed it evolved into my own personal action research. The domain of my research, the focus of my most intense curiosity, has been the nature of the experience of whole human action. Since I cannot have enough experience of my own to satisfy that curiosity, I have found, in rich conversations with my students, in the context of their activities, a way to share in the experience of others and to engage them full cycle. It is in the practice of learning about, and helping another person experience their own whole psycho-physical functioning that the beginnings of the theory of human action that I seek seem to emerge. Although most people first come with a problem of some sort to be solved, I have become over the years increasingly frustrated by the prevailing view of Alexander's work as a sort of cult of self-improvement. I share with Dewey the view of it as a method of self-investigation. In Dewey's view the importance of the Alexander Technique as a method by which an individual can generate new personal experience, indeed experience of a new sort, far outweighs any specific benefits that it might bring. In fact Dewey made two rather shocking statements about the implications of Alexander's work. When asked by his daughter Jane for a statement for a biographical entry on him in a book on his philosophy, he wrote,

My theories of mind-body, of the coordination of the active elements of the self and of the place of ideas of inhibition and control of overt activities required contact with the work of F.M. Alexander, and in
later years his brother A.R., to transform them into realities. (Dewey, 1939, p. 44)

The second statement is from his introduction to Alexander’s *The Use of the Self* in which he says of Alexander’s technique that, “It bears the same relation to education that education itself bears to all other human activities.” (Alexander, 1932, p. xix)

Much of my work has been about exploring what those two statements might mean. It was my desire to articulate the implications of this method of self-inquiry that led me to seek a convergence of Alexander’s work with Kelly’s.¹

Over the years I have come to think of myself as something of an experimental natural philosopher. After my several less than satisfying attempts to make myself into a scientist of various sorts, I find that I have been a different, much earlier sort of scientist all along. In my graduate studies in the history of science I came to view two interwoven scientific traditions, the one evolving from the formulaic worldview of the magical tradition and the other from the personal (I might now say conversational) tradition of shamanism.² The two traditions are not mutually exclusive—and I believe that Science (with a capital S) must, in the end, incorporate both. So I have been pulled, over the years, between the childhood ambition to comprehend the world from a physicist’s point of view and the phenomenologist’s recognition of the primacy of whole human experience. The details of my years of struggle are of no importance here; indeed the paradox is that what seemed at the time to be failures to complete prior tasks now appear as unanticipated paths into an inquiry into my deepest personal questions. What emerges from them for me is a particular

¹Frank Pierce Jones, in an article titled “The Works of F.M. Alexander as an Introduction to Dewey’s Philosophy of Education,” claimed that the justification for that title was that several of the concepts central to Dewey’s philosophy found their concrete experiential sources in his work with the Alexander Technique and that though one might come to appreciate these concepts as abstractions by reading Dewey’s books there is no way to know if such abstract understanding bears any close relation to Dewey’s own. If, however, one were to have a similar personal psycho-physical experience with Alexander’s Technique, one would have a basis for a shared understanding. Dewey wrote a letter to Jones in October, 1942, stating, “I have read your paper with much interest. I hope *School and Society* will publish it. I certainly endorse all you say about my work. I am especially struck by the truth of what you say about the difference between a kind of intellectual assent to certain propositions and beliefs and the concrete vital meaning they take on after an experience of their work.” This opens some intriguing possibilities for pursuing Dewey’s view of the Technique as an experimental method for investigating philosophical questions.

²The science of chemistry, for example, is very much a descendent of the magical tradition.
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Personal construct, or perhaps a tightly wound bundle of constructs, and a new perception of my own “situation” not as a frustrated student pulled between two domains but as a curious person taking the whole human person in action as my field of inquiry. It is this experimental—and conversational—science of human action that I have been pursuing one way or another all this time. The focus of my interest has become steadily less academic and more personal. I have come to see that it is in myself, in the continuity of mind and body in action—what Dewey called “thinking in activity” and what Kelly called living “in anticipation”—in my own coordinated self as a natural process, that I begin to find the paradigm I have been seeking. Bateson liked to use the phrase “our own metaphor.” I have come to see that I am my own paradigm.

1.2 Intuitive Physics: The “Presenting Problem”

When I first began the work that was to lead to this dissertation I was interested specifically in the understanding of “scientific concepts,” in particular those from physics, and their incorporation into daily life. What did it mean “to understand” a physical phenomenon? How did a person come to such an understanding? What did the persistent differences between common understandings and the “official” view of concepts in physics reveal about the nature of our understanding of the world we live in? Was it possible, from the perspective of personal construct psychology, to construct an anthropology of public understanding of science? Studies of science students’ concepts had shown that there is often a great difference between the sort of understanding with which one can correctly answer questions on physics tests, for example, and the kind of underlying conception that structures one’s anticipations of physical phenomena. Whether the subjects were elementary or university students studying simple mechanics or graduate physics students coping with questions about the behaviour of light in relativity theory, they seemed to sort themselves into three groups: the majority whose understanding, after some struggle, came to more or less match (at least on paper) that of physicists (as portrayed by their teachers), those few who seemed almost naturally to understand things that way, and those whose understanding seemed not only at variance with it but indeed seemed to be very resistant to change. These other systematic or semisystematic ways of understanding were variously characterized as naive, pre-Newtonian, Aristotelian, etc., the later two indicating that the concepts they contained seemed to mirror those of prior historical periods. One common explanation given for this was that, indeed, everyday experience is pre-Newtonian. For example, in most people’s daily
experience continuing motion does require a continuing force to sustain it. It might be said that the key to the birth of modern science was the idea of asking what motion would be like under impossibly refined, mathematically "linear" conditions, on frictionless planes, in a vacuum, etc. Since no one sees such conditions in ordinary experience, it is not surprising that many people have difficulty with such abstractions; they have no personal experience from which to abstract them. A typical study in this field takes a particular physical concept or topic, momentum, for example, or electric currents, and proceeds to draw distinctions between the "official" concept and that elicited from a group of subjects, most often students of a given age. These studies are often made in the context of testing ways of helping students come to an understanding that is more like the official one. One curious, and often frustrating, finding of these studies is that it is quite common for students to acquire an abstract understanding by which they can be successful within the abstract context of a physics course, essentially playing an abstract game by abstract rules, while holding the same habitual intuitions about concrete events that they began with. For example, having given the correct answer to a problem, their explanation for why they believe it to be the correct answer is more consistent with their previous naive view than with the answer itself (at least according to the understanding of the researchers). This mismatch between conceptual, abstract physics and "lived" or "intuitive" physics often has practical consequences. Even if a person

3One irony of this is that the understanding is called Aristotelian because Aristotle supposedly held a physical view that implied that force was proportional to velocity rather than to acceleration, and this, supposedly, because he failed to allow for the abstract question, "How would the motion change in a vacuum?" This characterization is ironic, and misdirected, since the argument from which later readers drew the faulty proportionality was, in fact, part of an argument for his claim that an actually existing vacuum is inconceivable. The murkiness of the whole historical recapitulation question was pointed out in an article titled, "Aristotelian' was given as the answer, but what was the question?" (Lythcott) This point is only significant here because it may often be the case that an individual who seems to have a distorted understanding from my point of view may in fact, from their own point of view, be doing something altogether different.

4While conducting a physical science lab on Galileo's classical inclined plane experiment, I asked the students to predict what they thought would happen to their wheel as it moved on the plane and to explain why they thought that. They gave me many quite interesting answers. One young woman said that the wheel would speed up as it rolled because it was going down hill—and that it would go even faster due to gravity. I asked her after the lab if these were really two distinct effects for her and, after considerable pondering, she reported that they were. It was clear that not only her understanding, but the dimensions of her understanding, were different from mine.
learns how to give the correct responses to formally presented problems about momentum, they may still drive their car as if they had a very different understanding. A "constructivist" analysis of this persistent divergence between the physicist's view and that of the "naive" person would lead to the conclusion that the significant difference is in the level of abstraction of the construct dimensions being used. Much of training in physics, that is the development of skills not only analytical but perceptual, involves assimilating a set of paradigms. This amounts to the adoption of a certain set of perceptual and conceptual dimensions along which one's experience of the physical world is organized. A key fact about these construct dimensions is that they are relatively abstract. That is, they subsume attributes of a wide variety of experiences, and thus the trained person's understanding of a given phenomenon is in terms of attributes that are relatively distant from those related to their immediate concrete experience of it. It may be possible to "see" angular momentum being conserved, but it takes practice. The understanding of the untrained person, on the other hand, tends to be in terms of dimensions that are more closely tied to that immediate experience. Quite often in my experience with students in this group I found that their difficulty in coming to grips with physical concepts was that they could not find appropriate perceptual or conceptual dimensions on which to construct a new understanding, in particular, the dimensions of "before" vs. "after" some key event. Their expectations about where a physical process would lead were limited by the ways in which they could see the situation being the same or different. The underlying construct dimensions tend to be "orthogonal" to those of the "official" concepts. For instance, the typical notion of the spring includes aspects of the concepts of force, momentum, energy, etc. which tend to be quite difficult to resolve. Both students and physics teachers often make the same classical assumption of an objective realm of things that have properties; they only disagree about what things have which properties. There have been many studies over the years that have attempted to map the specific concepts involved in various specific topics, as well as a few attempts to provide more general categories (such as diSessa's "phenomenological-primitives" or Guidoni's "natural thinking"). What has interested me most has been my observation that the orthogonality of these underlying constructs is not limited to a "cognitive" subspace, but also encompass bodily

5A student of mine once related a contrasting example, the story of a high school physics teacher whose former students thanked him for the effectiveness of his teaching by relating stories of how their real, practical understanding of the principles they had learned from him helped them to act effectively in real life situations, avoiding car crashes, etc. by not doing what would previously have been the intuitively obvious thing.
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(muscular, kinesthetic, emotional, etc.) dimensions. Not only is it sometimes possible to observe the bodily effects of, for instance, a person’s attempts to build an understanding of the concept of “force” out of their own muscular experience; it is also quite possible to see them “using” the interference of muscular tension or extraneous movement as the embodiment of cloudy thinking when they face a problem that they construe as beyond them. They literally, physically, prevent themselves from being able to solve the problem. So most of the time the roots of the problem of intuitive physics remain wholly unexamined. Questions about how abstract understanding derives from concrete bodily experience are researched and debated in abstract ways, and efforts to deal with the mismatch between the understandings of various groups miss a central point, that such understanding has as much to do with what we call “feeling” as with “thinking.” We debate the status of “external reality” yet assume that our own “felt sense” of internal reality is unquestionable.

Thus as I continued to teach physics and philosophy in the classroom and mathematics etc. in tutorial settings as well as the Alexander Technique, a new set of questions evolved. These were essentially practical philosophical questions about embodiment and the relationship between the quality of thought and the quality of action. I became increasingly curious about the wider implications of Alexander’s work. What did Dewey really see in that work? How are we to take his statement about the relation between the Technique and education? What is the “new field of enquiry” that Alexander thought he had opened? I naturally took that psycho-physical work to apply to the body-subject as Merleau-Ponty had described it. The Alexander Technique is often mistakenly classified as a type of “body work.” Perhaps such a classification would be acceptable if what one meant by “body” were articulated on the basis of Merleau-Ponty’s relational definition of body as one’s mode of “being in the world.” What kind of a physics course might be derived from that articulation?

Bringing these two areas together, what came to puzzle me most was the question of embodiment, particularly in relation to “understanding.” Just how is it that a person’s conception of the phenomena of their physical environment is constructed out of that person’s bodily experience? Just how is it that my own self-directed movement becomes the paradigm for my concept of motion and force, etc.? How might it be that a psycho-physical personal science could form the foundation of a more human view of physics?

Physics is commonly defined as the science of matter and energy. In its pre-Socratic roots it was a pondering over the fundamental nature of the material reality underlying human experience. At least as far back as Aristotle “matter” was taken to
be synonymous with "potential." On the other hand, the very concept of energy is fundamentally one of relationship. So perhaps it would not be too poetic for me to claim that at its most basic, and its most general, physics is a science of potential and relationship, of what Dewey referred to as "material consequence." As physics is usually considered, the one thing in the universe which is left beyond comprehension is such a phenomenon as a physicist. Where in the physicist's model of the whole world is there a place for the one who is asking the questions, for the one who makes the model? I still believe that what I am about is at least related to physics—but to the physics of a world in which such things as physicists are conceivable. A fair question at this point would be, what has all this to do with human learning? In an address on "Hostility," Kelly said of the term learning that it is "washed up," that when personal construct "theory gets through with it it sounds like a synonym for the verb to become." (Kelly, 1979 p. 272) I take the phrase "human learning" to refer to learning in this life-wide sense. And I take the act of learning, the process taken whole as my field of study. It is ultimately nothing less than a way of studying what it means to be a changing person.

1.3 Towards a Wider Science

I had originally intended this study to lead to new ways of thinking about and learning physics. That specific goal has become secondary to my endeavour to explore a wider "lived physics" though building such an approach on the present foundation may be a task for some later time. At its core, physics is a search for invariants, for those aspects of physical experience which remain constant in the midst of change. Physicists are seldom troubled by the questions of eternal fixity and change that Western philosophers have struggled with for two and a half millennia. This is because in the midst of their practice as physicists they live out just the kind of conversational construction of reality that Kelly proposes as our model of a human person living life "in anticipation" of the ways in which events may be replicated. An invariance is not a fixed entity; it is simply a way in which some bit of the world as experienced (e.g. measured) may be replicated. Given some interaction or process of interest, an invariance is a clearly articulated way in which events as experienced from "here" and "there" or "before" and "after" will be similar. To say, for instance, that energy is constant is simply to say that certain kinds of interactions one may have with a physical system will give the same "result" after some process as before. It doesn't matter when we interrupt the process to measure the total energy; we will always get the same result. The search for invariants is simply a search for ways in
which experiences can be similar. Invariances are reasoned to, not directly perceived; they are in the realm of what Aristotle called the “rational forms” of things. They are a matter of the dimensionality of potential physical experience, and the history of physics is a story of the quest for ever more general invariants, that is, for ways in which things are similar in the face of ever wider ranges of difference. In a sense, the search for universal theories is just a seeking after relationships about which one can say, “This will be the case no matter what else happens.” In this sense, a physical principle might be considered as a construct generator—a means of generating new ways of anticipating the physical dimensions of events—and the “physics” is in the constructs. Two important points that can be drawn from this apply to the physicist as natural philosopher and to the ordinary person as intuitive physicist respectively. The first is that we get into trouble when, having recognized the dimensions of meaning in physical experience which lead us to things that continue to be true as conditions vary, we go beyond that to claim that they constitute “truths” which exist separate from any conditions. Interestingly, physicists seem to have less tendency to fall into this difficulty than do scientists working in other fields which they see as in some way “modelled” on physics. The second point is that what we mean by a “misconception” is often a misconstrual of the dimensions of “before” vs. “after” which lead us to anticipations that do not play out in subsequent events. An incorrect prediction may be the result of an application of an inappropriate principle to a situation which I have perceived as an example of something else. If I do not construe the situation before some key event (a collision, a string breaking, etc.) in appropriate ways, my expectations of what features of the situation will be the same after the event may be incorrect. If I know that what I expect is not what is supposed to be the correct answer, I may give that other answer if asked, even though it does not “feel right.” This is how we can learn to give the “right answers” for the “wrong reasons.” Of course, both the physicist and the person can get into either kind of trouble. Having said that I have left specific issues of physics behind, I belabour this matter a bit only because, just as we will see later in the case of geometric space, the physicist is an apt model for a person striving to make sense of their experience. This is precisely because they, in their work as physicists, are doing just what we all do, but in a most formalized, intentional and abstract way. To consider a person “as scientist,” or to claim that for humans living is a kind of science, is not to claim a primacy of intellectual abstraction but rather, exactly the reverse. Abstraction is the servant of anticipation.
Chapter II

II: A BRIEF INTRODUCTION OF MAJOR CONTRIBUTORS

II.1 Four Converging Streams

The scholarly sources of my current understanding of the issues I have been wrestling with are primarily the works of, in order of their appearance Maurice Merleau-Ponty, F. Matthias Alexander, George Kelly and John Dewey. There have been many other more peripheral contributors, of course, from several fields of study, but with some effort I have resisted the temptation to attempt to be encyclopedic and give a full accounting of them all. In fact, as the work has progressed it has become more clearly centred on a certain intersection of the ideas of these four. Regarding many of the other writers that I might have chosen to discuss, their importance for me has seemed to come down to the fact that if I read them the right way I can claim that they have each, in their own way, articulated some of the same fundamental insights which I have found in the work of the above four. But my intention is not to establish priority in any of these matters. It is not my intention, even regarding my main four sources, to claim that any combination of them already constituted the new science that I am seeking, but rather that their work certainly took steps in laying the groundwork for such a science. It is usually the case that only after a new perspective has emerged that we can read the works of its "godparents" and say, "See, they were saying this all along." As I mentioned earlier, my own entry into the field of biophysics was motivated by a combination of an interest in the physicist's view of nature and the phenomenologist's view of human experience. For me this combination made sense in relation to the particular brand of phenomenology with which I first became familiar, namely that of Merleau-Ponty. It is personally significant that I first read Kelly in the context of Merleau-Ponty's *Phenomenology of Perception* and of my early practical experience with Ms.

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*Dewey noted ("Body and Mind," Dewey, 1931) that in the earliest days of the European tradition theory and practice did not suffer the exile from each other that they so often do today. They were united within the term, techné, which Dewey described as an endeavor seeking "to command practices that were rational and a reason embodied in practice." By this standard I would certainly take Kelly's work to qualify as techné and Alexander's as well. Both Dewey and Merleau-Ponty seem to have seen the importance of their own work in its relation to a context that could be called "technical" in this original sense.*
Barstow’s teaching of the Alexander Technique. On reflection, it is not surprising that I should have given both Kelly and Alexander the phenomenologically primed reading that I did, given that I encountered their work soon after Merleau-Ponty’s. I find that Kelly’s work also seems to be an endeavour of bringing together the fundamental attitude of experimental science and the phenomenological approach to the context of the “full cycle” of a person’s experience. There is a practical complementarity in the methods developed by Alexander and Kelly. Alexander’s self-discoveries point to what Dewey termed “the continuity of experience” in perception (internal and external), conception and action, although in recognizing the unity of the individual in action, particularly action in its directional and sequential aspects, they also refer to its dimensionality. Kelly, in the theory and methodologies of personal construct theory, provides a means of addressing and articulating the dimensionality of experience, as we shall see, a geometry of meaning. In pointing beyond the methods, however, he emphasizes that it is in the continuity of the full cycle of experience that the full meaning of a person’s living is to be found. It was in my effort to articulate what I found to be the common psycho-physical core of Kelly’s work and that of Alexander that I “rediscovered” Dewey, and the need to reconcile the “phenomenological sense” of Dewey with that of Merleau-Ponty led me to the deep agreement between them on many of my own key issues, and so has brought me full circle.7

II.2 Human Learning: The Conversational Context

The Conversational Science Paradigm

What was needed, however, if I was to bring the various threads into a coherent fabric, was a framework within which to cultivate their synthesis. During my years tutoring individual university students, occasionally one of them who had succeeded well enough to contemplate going on to do graduate work would ask me for advice. What I would tell them was to find the people somewhere in the world who were doing the sort of thing they most wanted to do and go and study with them.

7Late in this process I found that the circle has been fuller than I knew; I rediscovered an anthology which I had first read more than a year before my first encounter with Merleau-Ponty, complete with my own underlinings of passages in an extended excerpt from Art as Experience. I find on rereading that the underlinings I would make from my present perspective are not much different. So there is after all something essential about my own view which has been greatly shaped and enriched, but not created, by my experience with my four conversants.
Eventually I had occasion to take my own advice when I discovered the Centre for the Study of Human Learning at Brunel University. The paradigm of conversational science that had evolved at CSHL over the years (paradigm both as a theoretical framework and as a set of means for practicing within that framework) with its central concepts of "self-organized learning" and the "learning conversation," and the essentially "humane" scientific attitude inherent in it, seemed to provide both the theoretical and practical contexts within which I could at last bring some unity to my own work. In some ways I found nothing new. For though I had never called my students "self-organized learners" I have nearly always worked from the assumption that they were and treated them as such, and though I never called my conversations with them "learning conversations" I believe they have had that multidimensional conversational quality for some years. The ideas and methodologies developed at CSHL have been well described in Thomas and Harri-Augstein's books, *Self-Organized Learning* and *Learning Conversations*, and in a number of doctoral dissertations produced by their students. However, at the centre of all is the simple proposition that learning is itself something that one can learn to do better, that by finding ways of articulating and reflecting upon personal experience and thus making our present means of engaging our experience explicit, we gain a greater range and depth of choice about how we will construe that experience. The learning conversation is essentially a self-referential process by which an individual not only learns better but learns to become a better learner. By reflectively engaging, in a given context, the dimensions of personal meaning, as well as the strategies they are employing, the individual can not only improve the effectiveness of their learning in that context; they can also gain experience that improves the effectiveness of their engagement in other learning contexts. Such a learner is self-organized in that the dynamics of any particular learning process are driven by their own purposes and learning needs. As ways in which they learn effectively in one context get reflectively recycled, the process is not merely iterative; it is elaboratively so. In my own case, by finding a means and a framework for articulating the conversational quality of the psycho-physical work I was already doing, I gained the ability to carry it on with more confidence, more consistency and finer detail as it became more explicitly conversational. I have seen my task in relation to this evolving conversational science paradigm as being the pursuit of means for making the psycho-physical, embodied, char-

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8It is a humane science in that it does not accept the typical isolation of the researcher from the subject, but recognizes that each is a person with purposes and needs of their own. In true action research "caring" is just part of being scientific.
acter of the learning explicit and maintaining the articulation of that character within the conversation. As they point out in Learning Conversations,

What fails to be appreciated is that learning embodies as much feeling as thought and as much action as reflection. Our representations of personal myths are multi-faceted; kinesthetic, iconic, auditory, tactile as well as symbolic forms; all these mediate in a process language about learning. In learning to pilot a helicopter, to control a combine harvester, to use a manual, to lead a scout patrol, to operate a computer, each form of representation plays its part, albeit almost always unconsciously. This tacit representation underlies and conditions how we learn. Herein dwell our deepest myths about our processes of learning. (p. 17)

My working question has been, "How can we go beyond recognizing that it is the whole person who is engaged in conversation—whether with their own knowledge, with another person or with the world—to carrying on the conversation itself in a more fully embodied way?"

What this exploration has been about then is "human learning," recognizing that a human individual is an embodied knower, that human knowledge is always essentially what Merleau-Ponty refers to by the beautiful phrase, “knowledge in the hands” and that knowledge is thus inseparable from action. In this pursuit, I believe I have made two significant contributions. The first is the weaving of a common thread in these four relatively overlooked bodies of work, culminating in my concept of "conductive reasoning." The second is my development of a conversational methodology for the practical use of this concept in dealing with learning in a more fully embodied way, indeed, in dealing with the exploration of “embodiment” in a more embodied way. This has become a conversational framework which I have called “conductive conversation.”

**Learning Conversations**

Before pursuing this line, however, it will be useful to give a brief outline of what a Learning Conversation is and how it proceeds. The Conversational Paradigm takes its concrete form in the methodologies Thomas and Harri-Augstein have developed in support of this conversation about learning. There are three levels on which Learning Conversations can take place, corresponding roughly to the levels of the learner’s awareness of their own learning process. The most basic level is the

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9See the “Conversational Introduction to Conductive Reasoning” and refer to the audio and video tapes in the second “volume.”
tutorial or task focused conversation. This level of conversation relates to a specific learning task. Such a conversation may, for instance, be organized around a single personal learning contract relating to some initial purpose and set of strategies, or a series of such contracts as the learner refines these. It may happen that the pursuit of the task reveals wider questions or wider purposes, and these may lead the learner to a second level of conversation, the life conversation. Where the task focused conversation is concerned with the question of what to do and how to do it in the service of the learner’s purpose, the life focused conversation is concerned with why, with the purpose behind the purpose. Further, as a learner goes through some cycles of task focused conversation, and even more as they engage in conversations about a series of different tasks, aspects of how they go about learning can become observable. This learning focused or learning-to-learn conversation is formally like the task focused conversation, but now the task is that of learning to be a better learner.

At whatever level a learning conversation takes place it is, over time, a weaving together of three interrelated dialogues. Typically we come to a learning task with a certain set of “robots,” that is, habitual competencies. We have a way of doing something, often mostly unconscious, which is effective to some degree or other. In situations where we seek to “know” something rather than to “do” something this takes the form of an habitual construction, our way of making sense of things, or of holding them in a comprehensible pattern that allows us to know where to put new bits of experience. The dilemma a learner faces is that as long as the robot is in operation there is no way to find a better way of doing things. Their awareness is “task bound.” It is the situation of those with whom Socrates spoke, who, because they believed they knew, could not seek to know. Thus the first step in learning must always be calling into question the belief that one already knows. The first step in the process of learning is the “challenging” of the robots. Occasionally circumstances will challenge them for us; our habitual way ceases to work. More rarely an individual is able to call their own robots into question. The intentional challenging of a learner’s robots is the first task of a “learning coach” and is the substance of the process dialogue.

What happens when a person’s habitual competence is called into question is, of course, that they become relatively incompetent. This is a very insecure, uncomfortable state to be in; it is the “learning trough.” Whenever a person is thrown into that state their strong desire is to get out of it as quickly as possible, and the only apparent way to do that is to revert to reliance on the original robot. If a person is to stay in the trough long enough for something else to happen, they need
support. The support dialogue is the second ongoing task of the learning coach. Being able to challenge one's own robots, to call one's own knowledge into question, is the first mark of a self-organized learner. Being able to provide one's own support in the trough is the second.

The learning coach who holds the process for the learner, and who provides systematic support so that the learner may continue to engage in that process, is acting as the essential teacher Plato described as the one who induces a person to turn from the shadows toward the light and then keeps them facing the light long enough for their eyes to become used to the brightness so that they begin to see what is there. The third phase of the process is the task of bringing things together in a new pattern to replace the old robot. This task of rearranging the old pieces, finding usable new ones and constructing new personal meaning from them brings a new requirement. If the learner succeeds in giving up their reliance on external authority or on the authority of their own robots, they will need to establish a reference frame against which to evaluate their learning. This is the substance of the referent dialogue. It is a dialogue about the establishing of standards by which the learner can measure where they are in relation to their task and purpose.

These three levels and three dialogues are not distinct conversations, but rather more or less distinguishable parts of an ongoing interaction. Some segments of a conversation may be easily identifiable as being at particular level or as being of one dialogue or other, but often several aspects are implicit at any moment. In particular, whatever the specific task at hand, the learning conversation is intended to help the learner to become more self-organized. Thus the task focused conversation is carried out in such a way that the learner may come to see how to address other tasks, and the process, support and referent dialogues are carried out in such a way that the learner gradually becomes capable of challenging their own robots, sustaining their own process, providing their own support, and seeking out the needed resources for their own learning.

The central model of the learning conversation, the framework for implementing and reflecting on personal learning contracts and the heuristic that gives explicit shape to the learning process is summarized in MA(R)4S. This stands for: Monitor, Analyze, Record, Reconstruct, Reflect, Review and Spiral. The first three have to do with the articulation of experience. If any learning is to take place, some way of observing and capturing features in what is happening initially is needed. These Monitored observations must then be analyzed in terms of the learner's present model of what happened in order to form the material for an adequate reconstruction. It is the Record of the results of this analysis, the
representation of personal meaning, that becomes the subject of the rest of the conversation. The process of building that record also begins to develop the personal language in which the conversation can proceed.

The second major phase is then represented by the other three R's. By running the record through the model the learner takes a new perspective on the original experience and can thus Reconstruct the experience, bringing new meaning to it or revealing personal meanings which may have been hidden in it. By Reflecting on these new meanings in relation to the original intentionality they can evaluate the experience in terms not bound by their initial conception of it. They can, for instance, become aware of the various ways in which their performance of their task might have been better in relation to their purpose. But this step is not only a matter of learning to improve performance defined according to the original model, for Reviewing it opens the possibility of taking apart and reconstructing the model itself which makes whole new levels of learning available to the learner. It is significant that many of the dimensions of meaning in terms of which this new learning takes place and much of the personal language which emerges from the conversation itself are non-verbal.

The Review of the process itself as a whole often leads to a reassessment of the learner's purpose as well as a refinement of how they pursue it. Thus the whole process Spirals upward to a new level of the conversation. In a Learning Conversation this spiraling recycling of the whole process is an explicit step in the process itself. The process is thus both iterative and hierarchical. The Learning Conversation has a "fractal" quality. Learning Conversations at the tutorial, life and learning-to-learn levels and spanning varying durations are repeatedly revealed in retrospect to be segments in larger Learning Conversations. On one scale the single personal learning contract about a specific learning task, reflectively implemented and reflected upon, can constitute a Learning Conversation. This whole conversation can then become one cycle among many in the process of a much larger conversation. In the end, for a "fully fledged" self-organized learner, all of life can be experienced as a single Learning Conversation.

As noted earlier, in practice the conversational paradigm is embodied in the technologies which support the process just described, and the potentialities of the Learning Conversation rest on that methodological base. Thus much of the work of CSHL has been directed toward developing such "reflective tools." Some of these are computer based, some pencil-and-paper; some involve other kinds of hardware. In each case the purpose of the tool is either to provide a means of producing an adequate representation of personal meaning about which the learner can then
converse or aiding the learner in systematically reflecting on such a representation. The general form of the Learning Conversation spans many levels of meaning and its specific implementation is always uniquely personal. The task for the tool maker is to bridge the span by providing tools suitable for specific kinds of learning tasks. In order to navigate the phases of the learning process as summarized in the MA(R)4S heuristic, whether with or without help, the learner requires an appropriate "measuring device" for monitoring events, a means for generating a representation of their personal meaning which is open to reconstruction in relation to the particularities of their task, and perhaps means for enhancing the reflective phases of the process. Each of these tools may need to have features specific to the kind of task involved.

It is thus that the present work lies squarely within the range of the Learning Conversation model. I have endeavoured to articulate a perspective on the more-than-verbal dimensions of meaning as being embodied as well as constructed and to develop conversational tools which are appropriate to the task of learning to become more articulate about my own embodiment of meaning. It is fair to ask at this point why I have not chosen to make more explicit use of the tools already developed at CSHL. These tools facilitate the task of making explicit and elaborating personal meaning. Part of the conversational quality of the process is an alternation between monitored experience and explicit reflection. It will be seen later that, though for many learning tasks there can be great advantage in this separation in time of having an experience and reflecting on it, it is in the nature of the learning domain involved that the conductive conversation cannot afford this separation. It is explicitly about the dimensionality of the space between any such explicit dimensions and on the bodily continuity that underlies both experience and reflection. Thus it sacrifices the number of dimensions that can be handled at once in return for the leverage gained by an awareness of a relatively few dimensions in relation to the individual’s coordination in the context of their action.

The Conversational Embodiment of Meaning

My primary claim is that the act of comprehending is an embodied act, and thus is as subject to the conditions of the coordination of the whole person as is any other act. I do not merely perceive the world; I act in it. To perceive is of course, already to act. Indeed the Latin roots of a whole group of common English words having to do with perceiving and knowing—perceive, conceive, comprehend, apprehend, sense—all come from words meaning to take hold of, to catch or to feel. At root, the verb "to know" and all of its relatives are active, transitive verbs. I do not
know the world from a distance; I grasp it. I am engaged with it. I and the world of which I am a part act on each other. There is no separation between the cognitive and the physical (or between either of those and the emotional) dimensions of that grasping. I take the kind of intelligent responsiveness to conditions expressed by “knowledge in the hands” as a paradigm case of personal knowing. Knowing is never, in practice, merely cognitive. This is perhaps best illustrated in cases which are clearly “instrumental.”

To get used to a hat, a car or a stick is to be transplanted into them, or conversely, to incorporate them into the bulk of our body. Habit expresses our power of dilating our being in the world, or changing our existence by appropriating fresh instruments. (Merleau-Ponty, 1962, p. 143)

Merleau-Ponty discusses the example of a person who knows how to type. “It is possible,” he says, “to know how to type without being able to say where the letters which make the words are to be found on the bank of keys. To know how to type is not to know the place of each letter among the keys.” (ibid., p. 144) Nor is it a “conditioned reflex” for each key which is triggered when we see the corresponding letter. The ability to type is an acquired, habitual ability, but what is that? “If habit is neither a form of knowledge nor an involuntary action, then what is it?” It is, he says, knowledge in the hands which is forthcoming only when bodily effort is made, and cannot be formulated in detachment from it.... When I sit at my typewriter, a motor space opens up beneath my hands, in which I am about to ‘play’ what I have read. (ibid., p. 144, emphasis added)

The central thesis of my work, the fulcrum on which it is balanced is that all knowledge is a kind of “knowledge in the hands” and that all learning is reconstruction of meaning, not only in thought, but also embodied in action. All levels of abstract knowledge, and indeed the very idea of abstract thought itself, are abstractions. And I take this “knowledge in the hands” as a prototype of the kind of “lived” knowledge from which they are abstracted. I am seeking a means for learning to become more articulate in the realm of knowledge which is seen to be not only personally con-

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10 Even the word, “habit,” has a similar descent, meaning at root “something held onto.”

11 As we incorporate these instruments they become part of our “body,” our way of “being in the world.” Cf. Radley’s comment that “a construct is a process or vestibule through which a person exists.” (emphasis in original, Radley, p. 226)
structured, but embodied. This personally constructed character of meaning is what I refer to when I speak of the dimensionality of experience. Personal Construct Theory is fundamentally a framework for a “geometry of meaning” in which all of the dimensions of distinction within a person’s experience are like the dimensions of geometric space. Thus a person’s system of constructs is not just a framework for predicting the attributes of future events; it is a coordinate system for navigating experience. Harri-Augstein and Thomas define meaning as simply “the relationship between the knower and the known” (Harri-Augstein and Thomas, 1991, p. 27). Thus personal meaning is not just constructed; it is embodied, and what I intend the “continuity of experience” to convey is precisely that meaning is embodied in experience. “Learning” is then the elaborative reconstruction of embodied personal meaning—that is, in Kelly’s phrase, learning is a “synonym for the verb to become.” The focus of my work has been fundamentally a search for a way to explore questions of embodiment in an embodied way. What is “human learning” in its embodied context? If knowing is inseparable from feeling or doing, then to learn is not only to view things differently, not only to place a different interpretation on them; it is to respond differently to them—to become different myself in relation to them. To learn is to change. With apologies to Aristotle for the elaborating on his categorization, we might say that learning is a form of motion.

**Self-Organization and Coordination: Learning as Motion**

This is not, however, a merely theoretical claim. It is possible to go beyond merely affirming this interpenetration of the cognitive, emotional and physical in learning and actually put it into practice. It is not about making learning psycho-physical. It is about recognizing how it already is psycho-physical, and consciously employing that recognition. What is wanted is a practical method for doing so. I

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12 Perhaps this is what Dewey meant by Alexander’s technique bearing “the same relation to education that education bears to all other human activities.” Irene Tasker, who was Alexander’s assistant and ran a Montessori based “little school” in conjunction with his practice in London, gives an account of how the children learned to type. If they “refused to strike the keys until they had arranged their fingers on the appropriate keys for at least three letters ahead, they prevented rather than making mistakes. Prevention of mistakes, by encouraging the children to wait long enough to have their means clearly and thoroughly prepared before going on to their end, proved to be a result of carrying out F.M.’s principle in the classroom.” (Tasker, 1978)
have evolved such a method by bringing the practical work of George Kelly and F.M. Alexander together within the framework of the conversational science paradigm.  

If learning is an act of reconstructing personal meaning, if it is, in a general sense, a kind of motion, then what I am investigating is the relationship between learning and human coordination. I am always “in action” and the very idea of “what I am doing” is already a concept abstracted from the whole of my experience of myself in action. If my biological structure or my learned habitual patterns of movement affect the structure and qualities of movement of which I am capable at any given moment, then they also affect what meanings I am capable of embodying. If learning is an act, then being a “self-organized learner” is inseparable from the natural quality of the self-organization of human coordination. This is a most practical matter in that “knowledge in the hands” has its own inherent logical structure—and I will wish to describe that logic of action as “conductive” in nature. If a self-organized learner is one who can incorporate awareness of how they go about reconstructing personal meaning into the act of reconstructing in a given situation, then what I am claiming is simply that the “incorporation” involves a level of literal in-corp-oration, that is, an embodiment. It is the embodiment of dimensions of meaning in the experience of the learner as, in Dewey’s words, a “live creature.” (Dewey, 1934, chapter 1)

Within the framework of the paradigm of conversational science, what I am seeking, then, is a rationale and development of a method of self-science, a practical means for being a “personal scientist” who does not neglect my own embodiment. It is a science that is about the continuity of my own experience, the unity of my own action and the logic of my own embodiment. It is also a practical science, a sort of

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13The components of my synthesis have long since proven themselves in practice. Kelly’s Personal Construct Theory, especially within the Conversational paradigm has been fruitful in a wide variety of contexts. Alexander’s technique has come to be practiced most often in relation to chronic physical problems (where there is an important “learned” component) and also to many performance related activities. I am claiming not only that the combination of the two approaches makes explicit what each leaves implicit, but that in so doing it goes beyond that to establish a single coherent, and explicitly post-Cartesian approach to learning. Kelly’s framework for viewing myself as a personal scientist, together with Alexander’s method for generating new personal experiences, provide the ground for a more comprehensive way of being intentionally experimental in relation to my own embodied experience.
"personal cybernetics" in the original sense of being about the one who "steers" the ship.\textsuperscript{14}

In its early stages what the Learning Conversation is "about" are the dimensions of meaning within my personal construction. As it continues, it comes to be about how I construct and reconstruct meaning, thus leading to greater freedom to reconstrue. What I am developing is an interaction, what I call a "conductive" learning conversation, which is a conversation about the dimensions of my embodiment of personal meaning. It is a conversation not only about, but also in action, leading to greater freedom to reconstrue within the continuity of experience. Dewey spoke of finding the "unity of mind and body in action," asserting that the place to seek for the unity beyond such hyphenations as "body-mind" is precisely in human action. In a sense the three attributes of experience that I wish to emphasize, namely the qualities of dimensionality, continuity and conductivity are translations of the terms mind, body and action viewed not as things but rather as qualities within whole embodied experience.

\textsuperscript{14}See the "sailing ship" metaphor in the "Metaphorical Toolbox," Appendix 1a.
In the Interlude, the author invites the reader to engage in a conversation about the ideas discussed in the text. The author acknowledges that the ideas presented are abstract and need to be grounded in concrete experience for the reader to understand them. The author has provided some illustrations from their own experience, but these are still abstract from the reader's perspective. The author suggests that the reader derive their own meaning for these concepts by engaging in personal experiences and using conductive conversational tools. The author provides a conversational structure, called a "Conversational Introduction to Conductive Reasoning," which incorporates a discussion of these issues in the context of instructions for generating personal experiences from which the reader may draw something of the meaning intended. The author writes this piece in what Kelly would call the second person invitational mode, as a research instrument for personal scientists. The author invites the reader to engage with them in a more conversational mode by actively reading through Appendix 1 and then relating their experiences with it to what follows. 

15See footnote 1 above.
Chapter III

III: TOWARDS A GEOMETRY OF EXPERIENCE

III.1 The Phenomenological Unity of Perception and Action

In pointing to dimensionality as a significant quality of all experience I am asserting an essentially spatial or geometric conception of meaning. There are then two important points that must be established, the spatial quality of the relationships among dimensions of meaning and the priority of original experience itself over those dimensions. I found in my encounters with the phenomenological work of Merleau-Ponty a rich conversation about the nature of the relationship between conscious subjects and the world in which they find themselves which may illuminate both of these points. Two central, intertwined themes in his work, which I am discussing here in order to convey the phenomenological sense of my own ideas as they underlie my practical work, are spatiality and motility. All experience has something of a spatial quality. Location in geometric space is a particular kind of meaning abstracted from the more general “space” composed of the meanings found in whole experience. Indeed, the space of location is the prototypical space precisely because it is the most abstract, that is, its attributes are drawn from the spatial character of the widest variety of personal experiences. If I consider a number of perceived objects, for example, any one of them may be dark rather than light, soft rather than hard, living rather than nonliving, attractive rather than repellent; here rather than there is but one possible distinction among many. After I have left out of my consideration the many ways in which the objects differ from one another, my experience of them as having various relative locations is one of the few common attributes remaining. That I may then cycle this abstraction back onto my experience and posit this “space” and changes of location within it as being more fundamental than the original objects of perception, and indeed the source of them, is a curious by-product of the original abstracting process. One of the major themes of Merleau-Ponty’s philosophy is the primacy of perception, the claim that original experience is prior to any abstractions which we may draw from it. It is whole individual experience from which all other understanding derives. All of our theoretical constructs, all models of material reality, all principles which we may use to comprehend or account for the events we experience, all of these are abstracted from that original personal experience, and are thereby secondary to it. Whether in the case of the perception of a world or that of my own self, as an object for myself, or of the composition of
some intentional action in which I may find myself engaged, the whole is in an important sense prior to the parts because it is the context within which they are parts. Failure to recognize this primacy leads us to attribute concrete reality to all sorts of abstract entities.

The physicist's atoms will always appear more real than the historical and qualitative face of the world, the physico-chemical processes more real than perceived phenomena, the intellectual atoms represented by the "significations" of the Vienna Circle more real than consciousness, as long as the attempt is made to build up the shape of the world (life, perception, mind) instead of recognizing, as the source which stares us in the face and as the ultimate court of appeal in our knowledge of these things, our experience of them. (Merleau-Ponty, 1962, p. 23)

The basic phenomenological idea is that when I direct my attention to my own experience of the world, and myself in it, I find that my perception, as a phenomenon, already has an integrity and a structure prior to any abstraction I may make in my accounting for it. In particular, any division in terms of contributions to the structure of my experience from the "outside world" or from my "inner self" etc. are derived from the original whole. The point I want to emphasize here is that this primary experience has "space-like" qualities. That is, it lends itself to being "dimensionalized." Whether we are speaking of the ordinary visual experience of, for example, looking at a lamp on a table, or the more general experience of interpreting the shape and position of the lamp in physical, aesthetic, cultural or political terms, we find ourselves speaking of the "perspective" from which we observe it.

There is, however, more to the spatiality of experience than a passive framework for perception, more than an empty space in which perceivable events happen. Perception, and conception, in relation to this general space of meaning has everything to do with motility. It is because it is a space in which I move that it can be one in which I perceive. When I view an object from a given perspective, what I perceive is not the perspective but the object. Part of what makes it possible for me to perceive a whole object is my, at least implicit, ability to move in relation to it. To be able to perceive an object as being an object with attributes beyond what are available to me from my present position in relation to it is to be able to project the possibility of motion, of the taking of other positions, the adopting of other perspectives on the object. The appearance of an object as it does under present conditions, viewing the lamp from a particular angle under particular lighting conditions, for instance, is inseparable from the context of the other ways it would appear under other conditions. I may "literally" move to a different part of the room to view the lamp from a different angle, or I may change the lighting. Whether I in fact do so or not, it
is within the context of the *possibility* of doing so that my perception of the lamp as a lamp with such and such shape, colour, etc. rather than merely as a set of visual shapes having various colours or brightness is possible. But I could go even further. I could view the lamp, or in some other way interact with it, from a political rather than a physical "perspective." Not only what attributes, but what *kinds* of attributes I notice are themselves conditioned by the perspective I take, and again it is the possibility of taking different perspectives that is the root of my ability to perceive the lamp as such, and to include it in meaningful experience. So while perception holds a primacy over all abstractions that may be drawn from it, it is itself possible only in a context of action. From a physical, aesthetic or diplomatic perspective, I may perceive the lamp to be cylindrical or misshapen or in an insulting location. These attributes of the lamp are meanings for me from my perspective, and in the context of the other perspectives I might have taken. To perceive it as cylindrical is to know the shape beyond the rectangle I see from the side and the circle I would see from above. To be insulted by its position is to appreciate what it would mean to be sitting on the other side of the table. Of course, the meaningfulness of these other possible perspectives is derived from prior experience viewing similar objects and the construing of "similarity" is itself a personally constructive process. Merleau-Ponty repeatedly emphasizes the pre-objective roots of experience. In doing so he is not allying himself with the subjective in a subjective-objective dualism. "Pre-objective" does not imply unstructured or non-objective. It expresses the inherent structuring of that primary whole experience that precedes, and culminates in, our experience of meaningful objects. It emphasizes the fact that every such meaningful object has a history. What I want to emphasize is that it is the dimensional character of this pre-objective experience that gives rise to the meaningfulness of the objects.

### III.2 Darkness in the Theatre: the Spatiality of the Stage

How then are we to get from the space in which I grasp objects to the space in which I grasp meanings? And from there to inhabiting a world that has meaning for me? The answer, I believe, lies in the interplay between the dimensionality of my experience and its continuity. The spatiality of my own body and that of the external universe, the inner and outer dimensions of meaning are woven together in the continuity of ongoing experience. It is that continuity which makes them not merely the dimensions of a space in which I observe, but those of a world in which I act. And it is their interplay within that continuity that gives life its dramatic quality. Both Merleau-Ponty and Dewey make explicit the importance of the dramatic quality of
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experience, a quality which I find implicit also in the work of Kelly and of Alexander. If persons are essentially scientists in their anticipating and interpreting of events, they are also actors in their dramatic engagement with them. In this section I want to draw primarily from two chapters from the Phenomenology of Perception, "The Spatiality of One's Own Body and Motility" and "Space" and attempt to illuminate this notion of spatiality by examining the actor on stage as a specific example of a person in a role.

Merleau-Ponty's notion of spatiality is derived directly from those of the primacy of perception and the role of the incarnate subject, and it in turn gives them solidity. The spatial quality of an individual's situatedness is bound up both with the pre-objective roots of their perception and with their embodiment as a perceiving subject. As a conscious subject, I project space around myself, locating objects in it. This space has as its origin that irreducible "here" of the incarnate subject, and as Merleau-Ponty says, it "...is not a spatiality of position, but a spatiality of situation" (ibid., p. 100). "Space is not the setting in which things are arranged, but the means whereby the positing of things becomes possible... we must think of it as the universal power enabling them to be connected" (ibid., p. 243). Thus at root spatiality is not a property of an arrangement of objects, but rather a quality of my relationship to them; indeed it is the power of the perceiving subject to perceive objects as connected. But in common experience it is seen that things can be "connected" in many ways, the connection of geometric distance and direction being only one type. The common space of position, being a subset of the space of situation, can also be taken as closely analogous to it. It is the prototypical space precisely because it is the most abstracted from whole experience.

All existence is situated existence. I exist as a subject only insofar as I maintain myself in distinction from the objects of my world. And there can only be objects in a world at all because I, as the subject, can say, "I am here." Objective space, the space of geometric location, is an abstract space constituted from this initial presence, but since it is so abstract, and since objects never appear to consciousness without appearing as meaningful, we find open to us other, seemingly secondary spaces, which appear to be built upon it. An important point to note is that the power by which these secondary spaces can be so given is precisely that which is the possibility for any objective space. Every possible set of global interconnections between the meaningful objects of the situated subject is a possible world which that subject may inhabit and with reference to which they can define themselves and their actions. Just as the space of position is the area in which the geometric distribution of objects is possible, each of these worlds is a level of situa-
tional space. "The essence of consciousness is to provide itself with one or several worlds, to bring into being its own thoughts before itself as if they were things (ibid., p. 130)...and the possession of a body implies the ability to change levels and to ‘understand’ space" (ibid. p. 251).\(^\text{16}\) Thus the existence of the incarnate subject consists in constituting for itself at any given moment one specific world or combination of worlds, and the continuation of that existence depends on the ability to shift from one such world to another. All one can ever answer to the question, "Where am I in my own frame of reference?" is "Here." All other questions of "Where?" elicit the further question, "With respect to what?" Location is always a relationship. More generally, questions of meaning are always questions of relationship between knower and known. "I am" is a simple assertion; what I am is only definable in relation. But if space is "the universal power enabling [things] to be connected," then meaning is not in relation to what is, but rather to the ways in which things might have been otherwise. As Kelly has it,

So any statement we make can well be regarded as the answer to a question we ask—a biased question—and emerges as an indicated choice between alternatives previously posed. Furthermore any act, or experience, can be regarded as having such dimensional properties.... Any act, or feeling, or statement bears equally upon its subjective antithesis without which it has no psychological significance to the person involved. (Kelly, 1979, p.116)

Note that this quotation does not imply that cognitive or verbally expressible constructs are in any way primary. Indeed it is just the opposite; such constructs are themselves drawn from the wider "dimensional properties" of experience. Even more than that, a question like, "What is the meaning of that?" elicits the question, "With respect to what intention?" For my personal meaning is not only a relationship between myself and an environment that I "know;" it is a relationship inescapably bound up with my actions and purposes within my environment. Compare this with Merleau-Ponty in the later chapter on "Freedom" and in particular his discussion of the relation between meaning and intention. Such attributes of a mountain as "steepness" only have the significance they have for me in relation to my intention to climb it. Any given level of situatedness, any given level of a space of meaning may be abstracted, but the whole only occurs in relation to the embodied intentionality (in Merleau-Ponty’s phrase, the incarnate subjectivity) of a person in a situation. Through examination of pathological cases in which the patient lacked

\(^{16}\text{Cf. Kelly’s description of the freedom derived from the ability to shift among levels of one’s system of constructs.}\)
precisely this ability to move easily from one “setting” to another, and of experiments in the alteration of the perceptual field, Merleau-Ponty found that “what counts for the orientation of the spectacle is not the objective body but a virtual body with its phenomenal “place” defined by its task and situation” (ibid., p. 249). Later he concludes that “our body and perception always summon us to take as the centre of the world that environment with which they present us. But this environment is not necessarily that of our own life” (ibid., p. 285).

It is here that we may, by way of illustration, draw the parallel between the ordinary person and the actor on stage. The ability to act and to function as an integrated “body-subject” depend on the freedom to choose the level of situational space in which we are to operate, to choose our task and select a set of meanings from those possible for the objects around us. In his most clearly applicable statement Merleau-Ponty says, “To act is to place oneself for a moment in an imaginary situation, to find satisfaction in changing one’s ‘setting.’ (ibid., p. 135) ...the normal man and the actor do not mistake imaginary situations for reality, but extricate their real bodies from the living situation to make them breathe, speak and, if need be, weep in a realm of imagination” (ibid., p. 105). To act, whether in this sense, on stage, or in life, is an act of reconstruction of meaning. It is not to represent the world but to create a new world which we may inhabit for a time. It is to “take on” dimensions of meaning within which we go beyond attempting to reproduce what we know toward the creation of new experience which is similar to what we know in certain ways. In Kelly’s terms, we are free not only in the dimensions of our construction of meaning but also in the level of the dimensionality. Indeed, we seem to find ourselves free at levels of construction below that at which our conscious attention resides and at the same time determined with respect to levels above it. True freedom then, includes the freedom to move among the levels themselves. It is further notable that this free change of environment is possible because of the impossibility of my being fully an object for myself. My quasi-objective viewing of myself is accomplished only by reflection on my taking up of a world and it is only because I am totally reflected—that is, absorb none of the objectivity-for-myself of that world—that I can freely take up any of the possible levels of situational space. This is one sense in which Merleau-Ponty can describe the spatiality of the body itself as “the darkness needed in the theatre to show up the performance” (ibid., p. 100).

It is the constant task of consciousness to establish and maintain the boundaries and contours of a given world, to shape the forces by which that world’s meanings arise, to maintain the global setting always in the explicitly possible grasp of the
subject, and thus to continue to give meaning to the self in relation to that world.\textsuperscript{17} This is analogously the task of the theatre and specifically the actor on the stage. It has always been a major aesthetic and ontological question, just what is produced on the stage? What do actors do? It can be seen in this frame that what they do is precisely to take on a virtual body which is different from (though grounded in) their own habitual body, and that drama consists of creating a world which such virtual people inhabit. It is thus not a representation of reality but a reality in and of itself. But it is a world intended to have objective existence for-an-audience. This may be clarified by considering the real “darkness in the theatre” and how the metaphor can express what it does. All of the world of the theatre is on the stage, set off by the rapid transition to the zone of indeterminacy which is the darkness. As in the life of perception, the world on stage can only be a world because of the darkness. To cast our gaze anywhere invariably precludes us from seeing somewhere else. To construe our world according to a given set of dimensions makes other dimensions of construction unavailable in that moment.\textsuperscript{18} If we define performance in a general sense as engaging in an activity as if the quality of the activity mattered in some way, whether or not anyone happened to be watching, then Performance, in the theatrical sense, is activity in which the quality matters precisely because someone is watching. It is a performance “for” that someone. The audience “stands for” the perceptual subject; the stage is a world for them, and they, in darkness, are not objects for themselves. Traditionally, an added aspect of this theatrical darkness has been that it conceals the spectator from the characters of the play; they are the unseen viewer—safe from the gaze of the other-subject, but not object. They are perceptually “on stage,” that is, they are in the world of the play—but are not present to the other in that world. They can see and hear that world, but they cannot “act” upon it. Each audience member is a discarnate being, a presence having no body. Some twentieth century theatrical experiments have been directed toward breaching that protective darkness, as it were, illuminating the viewer from behind and making them potentially object-for-the-character. It is in fact commonly breached in a particular limited way when one goes to a play “with someone”.

Having literally defined the space of the play as the area of the stage, we then proceed to build an environment in that space and characters begin to inhabit it. This discloses another essential distinction between the two kinds of space. Space of position is itself taken to be empty; objects are merely \textit{in} it and it is thus independent

\textsuperscript{17}Perhaps one would want to say that consciousness is the performance of this task.

\textsuperscript{18}Cf. Heidegger’s notion of “blindness.”
of them. But the space of situation, whether as given for-the-audience or for-the-character is wholly wrapped up with those objects which are in it—the set, props, lights, costumes, etc.—and with the movements of the characters which inhabit it, and the very structure of its spatiality is determined by them. The free space projected on the stage by a body-subject (for example, the director) is truly a paradigm case. It is on the one hand an empty area to be filled and on the other hand an infinity of possibilities to be shaped and formed into the world of the play.

Just what is the actor's stance in this world, both as actor and as character? The actor takes on the phenomenal body of the character and situates it in the world of the play just as in "real life" a person as body-subject takes up a particular task or a particular environment of meaning. Just as we may speak of the musician assimilating their instrument into their body, literally "incorporating" it for the task of expressing their musical intention, so the actor, in shifting levels, slips their real body into the new phenomenal body of the character and moves as if it were an instrument which has been assimilated to itself. This is the root of the great concern on the part of actors for the flexibility of their "instrument," for if an actor has a certain fixed habitual way of moving they will be incapable of fully portraying any character whose habits are inconsistent with that fixed pattern. The classic case is the film star who in role after role plays himself. If a large enough audience likes his habitual character he may make a great deal of money, but he is in only a limited sense "acting." The often overlooked issue, which accounts for the consistent interest in the Alexander Technique among actors, is that it is not enough to cultivate greater access to one's habitual repertory. One must be able to set aside aspects of one's habitual self. It is not enough to be able to play characters who have habits that I lack; I also want to play those who lack habits that I have, but that is much more difficult. This difficulty is a model for the one we all face when we find ourselves unable to respond to our situation as we would like. We find ourselves literally unable to embody the meaning that we wish to convey when the pattern of that embodiment is inconsistent with our general habitual patterns of action.

On stage this is the crux of the technical problems of motivation and appearance. The task of the theatre is not to be realistic but to be convincing, not to be complete but to be global. Thus what would normally be a ladder may be a tree—not a representation of a tree but a "tree" in the world of the play. It is, as object for-the-characters, a tree, and they will react to it accordingly. The audience must at once be

19It may not be so surprising then that it was a young actor, Alexander, who developed a technique for improving The Use of the Self.
able to know the ladder objectively as a ladder and see it through the eyes of the character as a tree. In life we face a similar need to recognize that an object can have very different meanings simultaneously in different contexts. Just as the actor must have the flexibility to live in more than one reality at a time, the rest of us need the flexibility to live with an openness to multiple interpretations of reality. Dewey repeatedly pointed out that the more we learn, the greater our need for flexibility. Unfortunately it is often the case in habitual practice that the more we know the greater the tendency for routine and rigidity.

Every figure presented on the stage including the characters’ actions must have sufficient and proper background; it must be “motivated” in the space of situation. The actor-as-character acts within the situation of her world and at the same time the actor-as-actor is aware of herself as object for the audience. Maintaining the balance between the sincerity of motivation of the character and moving so as to “look like...” is the skill of the great actor. Shaw said that we as the audience, “are not to see this woman as Ophelia, but Ophelia as this woman.” (Quoted in Carse, p. 12) This is accomplished by situating the character as firmly as possible in their environment. One typical method is to invent an autobiography of a character which has at least as many details of their past life as are needed to motivate their action as given in the script. The more detailed this work is, the more complete will be the character’s “history,” the more dimensions of meaning will be evident in the world the character inhabits, and thus the more real their situatedness. For that is in a sense what history is—the flow of the situatedness of the subject. Once they have assumed the characters’ pasts, the actors can fully locate themselves within their characters’ present situation, and fiction then counts as much as reality.

The point of this discussion is that we are each actors in the worlds of our own experience, and we inhabit the world which we think of as our reality in just this way. Living is a matter of taking on virtual worlds which we in-habit (i.e. engage with our habitual bodies). “All the world’s a stage...” has become the cliché that it has because we recognize that, just as science is the refinement of the anticipatory quality of experience into a formal endeavour, so the world of the stage is the distillation of the dramatic quality of ordinary life. In terms of my three thematic concepts, the interplay of the continuity and the dimensionality of personal experience is not merely conductive; it is dramatically so. The act of reconstruing, of choosing other dimensions along which to make sense of things is an act performed by a person as a whole. It is also the taking on and inhabiting of a new world with just these dramatic qualities. Beneath the dispositions toward certain patterns of action that we call habits lies the dimensionality of the habitual space of meaning out
of which we construct the world in which we act. For us as for the well portrayed character, there is a continuity between the unquestioned dimensions of meaning that we fail to see as the framework of our interpretation of events and those dimensions of action that are the structure of our "instinctive" routine reactions. Just as a good actor is free to "inhabit" a wide range of possible roles, living in many worlds on the same stage, so every human individual has the capacity to step beyond the world of their habitual construction to inhabit, not just to view but to live in alternate constructions. In life every event that might be termed a stimulus is a perturbation of the balance in the organization of the whole web of a person's meaning. It produces a moment of "drama" in which the whole system of the person's habits must reorganize to produce the person's "response," that is, their answer. If the person is too ill, too tired, too rushed, or too bound by routine, then one of their habits may dominate, as if in an attempt to maintain the balance, and collapse the moment before any substantial reorganization can occur. What follows is a mechanical reaction, a product of the stimulus and the dominant habit. If the web of habit and meaning is complex and flexible enough to allow the drama to continue, then what follows is a dramatic response of the whole person. In Dewey's view the significance, and the aesthetic value, of life lies not so much in the balance as in its restoration. What we will find later is essentially a method for insisting on that small dramatic space.

20The character of this whole response is reminiscent of Aquinas' analysis of Beauty. All beautiful things, from the physical to the spiritual, are characterized by three qualities: Integritas, or wholeness, Consonantia, or "due proportion," and Claritas, variously translated as clarity, brilliance or radiance. A beautiful thing constitutes a whole; it has integrity. What is more, that whole is composed of parts which are in due proportion with each other. The whole is also in proportion with the other things in its surroundings. The beautiful thing does not merely have these qualities of integrity and internal and external harmony, it has them in a way that calls attention to them. Claritas is a quality of self-assertion. The thing stands out, as if to say, "Come and take a look. Is this not an harmonious whole?" In just this way natural actions, as dramatic responses that reestablish the balance of a whole person in and with their environment, can be beautiful.

21In her Master's thesis on teaching the Alexander Technique to school children, Ann Mathews relates the following wonderful little episode with a little girl named Sophie. It illustrates the comprehensive simplicity that can be generated in that space.

Sophie was a child whose habitual slump suggested not only the shared peer group posture, but a genuine mild depression...One day she was squatting to get something from her cubby and looking particularly ungraceful—up on the balls of her feet, back humped over, head pulled down
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There is one more apparently technical point that will turn out to have great practical significance. We may think of space as a sort of pre-existing emptiness in which objects are located, just as we may think of a stage as an empty space prior to and independent of all of the various plays that will come to be produced upon it. But the stage is only a stage in relation to those plays that are on it. It is only prior to them in retrospect, only empty in anticipation of them. In just this way the space of meaning, the dimensions of experience, may seem to be an empty space which waits to be filled with the events of my life. And indeed, dimensions which I have made explicit, or those which I have come to habitually use, do prestructure subsequent perceptions and actions. They become the coordinates of a space which I in-habit, and which predisposes me toward seeing and doing things in familiar ways. This space is not prior to my experience; its dimensions are drawn from it. It is only empty in anticipation of future events, and even future events will remain open to new interpretation. In the case of ordinary geometry, certain relationships obtain within a set of orthogonal xyz-coordinates. Yet these dimensions are not prior to the space in which I draw my figures. I am free to set my origin where I will, and choose which way the x-axis shall go, or indeed even to use cylindrical coordinates instead. It is only if I come to routinely make the same choice that it comes to appear to have priority. Just so with meaning in general. This is why, although in practice many of the conversations I engage in deal with dimensions of meaning, I

to peer into her cubby, neck nowhere to be seen. I asked her to ease back onto her heels. She protested that she couldn't; her designer jeans were too tight. I asked her to try, and said my hands would support her so that she wouldn't fall over backwards. She came back successfully, but was still hunched. I asked her to let her neck release, her spine float up, and feel the air come into her lungs. My hands were still there to give her security, but not Doing, just being there. She lengthened up and as she did, her neck released and the head eased into balance. The parts, differently assembled, had, literally, different dimensions; there was something total about the change. I exclaimed in pleasure at the sight, then asked her if she would demonstrate the two different ways of squatting to the group. She agreed and at class time I had her hop on the table and slowly go through the shift in balance, my hands helping, just as it had happened. As she squatted there, apparently quite comfortable, designer jeans and all, I asked the children what they had observed. "Her back went from bent to straight." "She was squashed in front before and then she wasn't." "Her head moved." "Her neck got long." "She looks more comfortable." I was pleased that they had seen everything I had hoped they would see and was going to wind up the discussion when I called on one last child. "Yes, what did you see?" A pause, then, "She got beautiful." Several children nodded. I nodded and left it at that. (Mathews 1984, p. 40)
prefer to speak of the dimensionality of experience. What characterizes experience is not its dimensions but its availability to be understood dimensionally.

In his last work, *The Visible and the Invisible*, Merleau-Ponty returns to these matters again, drawing a connection between knowing and what he calls the "I can." In the process he elaborates a quite distinct, kinesthetic context. What is true for the relationship between my vision and the visible is also true for my sense of touch, in perhaps an even deeper way. I can at one level feel texture, roughness, smoothness, etc. At another level what I touch is not textures, but objects. But I do not simply touch them in the abstract, nor do I cast a tactile "gaze" on them. To touch a thing I must reach for it. To feel its shape and texture I must move my hand across its surface. Whether I turn my head to look or reach out my hand to touch, as I move to see or touch an object, I find my knowledge of it already in a context of action. But there is more. There is something peculiar, even paradoxical about reaching out to touch an object. As I reach out with my right hand to touch something, I can feel my own hand—a touch, as it were, from the inside; I can also see my hand moving toward and over the thing touched. I can even touch that right hand with my own left hand. I am a part of the visible even as I am the one who sees. I am both the one who touches and am open to my own touch—in both internal and external ways. My left hand touches my right as it might touch any other object, except, of course that my right hand returns the touch. And also, as my right hand moves, I "feel" the movement. In a sense my right hand touches itself in movement.22 This is a most difficult concept, but that should not be surprising. As Dewey pointed out, it is often the case that what is closest to us is the hardest to perceive, and what is closer to us than our very selves in action? The practical consequence of this for-itself/in-itself distinction is that although I am open to my own touch, although I am at least in part

22I have found the power latent in this touch from the inside illustrated often in the changes that occur when a person replaces phrases like "the head" or "the knees" with "my head" or "my knees" in their descriptions. I was working with a student once as she sat writing with a pad on her lap. She had managed to gain increased ease in her sitting, and some decreased tension in her hand and arm, but she was still at some distance from her own act of writing and found it difficult to maintain the ease whenever she began to write. At one point I reach down and touched her hand and said, "Now remember, this is you." She gave a slight shudder, a surprised smile came to her face, the quality of integration of her whole act of sitting and writing changed in a way quite visible to the others present. As she reported it, she experienced a sudden new sense of herself as a whole, a whole that included her hand holding the pen, and her vision improved. Nor was this a transitory thing. Many of those changes stayed with her for some time, and more importantly, she was able to regain them to some extent later using a similar turn of thought.
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visible to myself, although I can hear my own voice, I do not feel or see or hear myself in quite the same way that I perceive the rest of my world. Watching myself on a video monitor while I perform some action is a very different experience from watching a video tape of that same performance later. Arthur Keostler, after having lived in the U.S. for some forty years, chanced to hear a tape recording of his own voice and was shocked to hear that he still spoke with a distinct accent. For years he had "heard" his own voice as sounding just like the American voices around him. He speculated that all that time he had been perceptually comparing his habitual expectation of what his voice sounded like with itself and thus never recognizing that his voice actually sounded different. It was only when he heard the sound of his voice while he was not at the same time producing it that he was able to make an "objective" comparison and hear his own accent. We do not have a means of recording kinesthetic images for later "feeling" separated in time from the action itself, so it may not be possible to test the hypothesis that all of our inner experience of feeling ourselves in action exhibits this same characteristic distortion.23

III.3 From Phenomenology to a Geometry of Meaning: Merleau-Ponty and Kelly

Personal Construct Theory seems to be most often understood to be a theory of personality (this, indeed, was the title of the reprinting of the opening chapters of his large two volume work) but it provides a framework for something much broader than that (either that or we must greatly expand what we mean by "person-ality"). The combination of the methodology, its supporting postulates and the underlying philosophical assumptions provide a basis for a theory of meaning. In the introduction to A Theory of Personality, Kelly says of the philosophical assumptions in the

23There is an interesting parallel to Merleau-Ponty's account of touch in Carse's Finite and Infinite Games, in which he derives a number of what might be considered metaphorical constructs based on that of a finite game (where the basic intent is to win) and an infinite game (where it is to continue the play). One such contrasting pair is that of touching and moving (p. 75). To touch, in Carse's usage, is to solicit a response, and it is only "touch" when there is a response. Furthermore one cannot touch without also being touched. One cannot touch except as a whole person. We might say that real touch is by nature conversational. The contrast of touching is "moving." I can move you physically by pushing on you, which is to relate to you as an object of my action rather than as a partner in conversation. An actor or other performer may "move" the members of the audience emotionally, and, as Carse has it, the difference between a "touching" performance and a "moving" one is essentially this same distinction.
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first chapter that without them "the notion of personal constructs would be little more than another outcropping of nineteenth century phenomenology." His criticism of the phenomenological view in that work and later in "Ontological Acceleration" (Kelly, 1966) seems to characterize phenomenology as tending toward little more than a despairing subjectivism. Merleau-Ponty's phenomenology is certainly already more than that. Indeed, it has much of the same quality of dimensionality and attention to the anticipatory and "lived" character of the knowledge of the individual as does Kelly's own theory. Kelly seems to be aiming his criticism at the attitudes of a certain kind of phenomenological psychologist rather than to phenomenology as a philosophical perspective. He is criticizing a particular logical error, in fact the same logical error often found in behaviourism. To begin by finding that I have no access to the "reality of things" independent of my experience of them and to decline to say anything about such things on that account, and then to go on to claim that there is no reality beyond my experience is a contradiction. This is equally so whether one is denying the reality of an external world outside one's subjective experience or denying that of the inner world of the experience of another person behind their observable behaviour; it is the same contradiction in either case. Phenomenology does not—certainly Merleau-Ponty's phenomenology does not—take the position that there is no reality beneath my perception, nor even that it is futile to ask questions about it, but simply that my perception is primary, and further that my perception of the world is inseparable from my participation in the world. My question at this point is, What was it about Kelly's theory and method that prevented them from being a mere "outcropping" of phenomenology? And how does that distinction hold in relation to Merleau-Ponty's phenomenology in particular?

There are two things about Kelly's theory that distinguish it clearly from a "merely" phenomenological view. The first is the explicit underlying assumption, characterized by his philosophical position of "constructive alternativism," that there is a reality that lies in some silent way beneath any interpretation which we may place on it.\textsuperscript{24} The second is that while both Kelly and Merleau-Ponty hold a dimensional,

\textsuperscript{24}Note that one of the central arguments of Heidegger and others is that there is, in our experience, no uninterpreted reality—simply because it is always presented to us already with an interpretation, and this is not lessened by its being our interpretation. That is, it is reality for us precisely through our interpretation. Kelly would, I believe, agree with this. Heidegger actually equates existence with interpretation. I exist in so far as I interpret a reality. I exist through my constructs. So I can have no notion of an uninterpreted reality. Yet my interpretations do not rise from nowhere; they are interpretations of something. To interpret is a transitive verb. Something is outside my construction, but it is only some thing in or through my construction.
essentially geometric view of experience, Kelly’s personal construct theory goes on to produce a method—essentially a geometry—for articulating, reflecting on and reconstruing our experience by being explicit about its dimensionality. As a techné, if personal construct theory is phenomenological, it is a methodology for a personal, experimental phenomenology.

There have been numerous summaries of personal construct theory, and indeed, the axiomatic presentation by Kelly himself in the early chapters of _The Psychology of Personal Constructs_ is so clear, that it is not necessary to summarize it again here. There are, however, a number of important things to say about the theory and method. To draw together comments Kelly made in several different contexts, it might reasonably be said that his allegiance was not to psychology as it is, but to what it might become. The theory, generated out of the central metaphor of “man the scientist” and the principle of constructive alternativism, constitutes more than a psychological theory; it is also a philosophy of science. It is a philosophy of science which, in the line of Dewey, puts human experience squarely at the centre, thus one which includes the scientist. As Einstein put it, “The whole of science is nothing more than a refinement of everyday thinking” (Einstein, 1950, p. 59). From this perspective what Kelly’s theory is about is not so much everyday life as science but rather the qualities of everyday living the refinement of which is the formal endeavour we call “science.” In other words an individual life already exhibits a “scientific” character, the refinement and formalization of which is science proper. In developing not merely a framework for theorizing about that character but also a method for practicing it Kelly was bridging the gap between the science of a posited objective reality and the phenomenology of personal experience.25 Personal constructs are the “ways in which [a person] anticipates events” (Kelly, 1963, p. 46). They are not themselves objects of experience; they are, in Merleau-Ponty’s terms, pre-objective. Constructs are the dimensions of personal meaning. And as Radley emphasized in “Living on the Horizon,” they are not first had and then used. They are not dimensions simply of our knowledge of our environment; they are the dimensions of our relation with our environment, dimensions of experience itself.26

25It is significant in this regard that he pursued his personal study of it by engaging with people, psychotherapy clients and graduate students, one way or another in the throes of dealing with life.

26Perhaps the most widely known aspect of Kelly’s work, and one which relates directly to what I am calling its geometrical character, is the repertory grid methodology. In practice, this methodology is a way to get at the dimensionality of a given “class” of experience, that is, of the distinctions among experiential elements of a given kind. Its limitation is that it only refers to contexts in which the elements
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III.4 Construction and Embodiment

In the years since Kelly’s own clinical application of the theory, Personal Construct Psychology has seen a steady expansion into a thriving discipline with an ever wider range of application. Articles in the literature of this discipline seem to fall into a number of categories: those having to do with the development and refinement of the associated technologies (e.g. statistical analysis or computer implementation of repertory grids), applications to clinical practice, applications to education, demonstrations of applicability to other fields, and finally those addressing philosophical questions. Kelly himself made it clear that viewing a person’s behavior in terms of personally constructed meaning is itself a way of construing. It is not surprising then that many of the specific applications have been directed towards serving the needs of clinicians or educators. There are many situations in which one person seeks a fruitful way of construing another person’s construing in order to understand or interact with it, and much of what happens in educational situations has to do with teachers and students construing each other and both of them construing some particular subject matter. There are varying degrees of

are all in some way the “same kind of thing.” It relates to the ancient relation of genus and species. So on a given grid, what is revealed are the attributes by which a person distinguishes the species within a genus of experience. The particular methodology does not provide means for being explicit about relationships among bits of experience of different kinds, elements which are, for instance, causally related to each other. For this reason it is difficult to use in relation to a person’s construction of processes, unless it is convenient to view the process involved as a series of events which can be treated as objects. Then the method can reveal the dimensionality of their construction as objects. There are other practical means available, for example, “structures of meaning” for dealing with those other aspects of a person’s modeling of their experience. The present point is that this variety of practical means does not undercut the importance of Kelly’s basic approach (grids were, after all, only one of several techniques he proposed for dealing with various aspects of a person’s construing) nor does it argue against the claim that the entire perspective can be considered as a “geometry of experience.” It is possible, using “relationships grids” treating “before” and “after” or a series of events as elements etc., to elicit dimensions of meaning in relation to process. It is seldom convenient, however. And, as Kelly himself emphasized many times, this way of interpreting a person’s construing of the events in their experience is itself a construal.

27Most general collections, such as Bannister 1977, Bonarius et al 1981, Adams-Webber and Mancuso 1983 and Fransella and Thomas 1988, contain several articles in this group, and there are others, such as Landfield and Leitner 1980 and Mancuso and Adams-Webber 1981, that are focused on these issues.

28The general collections just mentioned also contain many articles concerning education (note e.g., J Novak, “Personal Construct Pedagogies” in Adams-Webber and Mancuso 1983, which has an interesting discussion of the connection to Dewey.
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of explicit recognition or interest in the whole construing person (and varying constructions of what constitutes that wholeness). Indeed the great utility of the theory and its associated methodologies lies in their being applicable to an infinite variety of specific areas of personal meaning across a wide range of levels of abstraction. As with any kind of abstraction, there can be great convenience in being able to treat construction without regard to embodiment. Whether I am trying to make sense of another person’s behaviour or my own, what counts as “behaviour” is already a matter of personal construction and is dependent on the level of abstraction of the “events” involved. Although Personal Construct Theory may contain a recognition of the embodied continuity of personal experience, what it is about is the elaboration of details within the dimensionality of personal meaning. Kelly’s is a formal theory in that it applies in structurally the same way in relation to any level or domain. Again, its general utility lies in its being independent of them. If however, it is myself that I am trying to make sense of, then beyond the convenience of taking any level on its own ground, even beyond the freedom that derives from skill in moving between levels, I face questions to do with the relationship between the dimensions of my construction and the continuity of my own bodily experience.29

A recurring philosophical theme that relates to my work is summed up in the title of an article by Fay Fransella, “What Sort of Scientist is the Person-as-Scientist?” (Adams-Webber and Mancuso, 1983, p. 127-135). The central question behind most of the philosophical branch of the literature has two forms, both of which are important for my own work: How is it that Personal Science is scientific? and, How is it personal? For me, much of the beauty of the person-as-scientist metaphor lies in its not always fully appreciated symmetry. There are long strands of debate about the aptness of the metaphor given the evidently “unscientific” behaviour that individuals often exhibit. There are references throughout the

There are also applications to be found in the literature of science education, e.g. Sutton 1980, Osborne et al 1983 and Preece 1984, which draw on Kelly’s work. See also Pope and Keen, Personal Construct Psychology and Education, 1981.

29Two practical points on where the present work stands in relation to personal constructs—it will be seen later that, though it can produce therapeutic benefits, it’s goal is not to produce an effective therapy, even a psycho-physical one. Nor is its intent primarily educational. What I am seeking to develop is a basis and a methodology for self-inquiry, a personal science of personal action. In seeking to allow the person engaged in such a science to hold the widest, most integral view of their own action intact while engaging with the moment by moment embodiment of meaning in action, there is a trade-off between the extent and level detail of the dimensions elicited and the leverage gained by sustaining explicit recognition of the dimensionality of the space beyond the accessible dimensions.
literature to both the utility and limitations of the metaphor (e.g. Mair, 1977) as well as a few more explicitly philosophical discussions. An example of the latter is F. Tschudi's article, "Constructs Are Hypotheses," (Adams-Webber and Mancuso, 1983) which critiques a much earlier one, "Personal Constructs, Rules and the Logic of Clinical Activity." (Michel, 1964) Essentially the point that both writers seem to have missed is that person-as-scientist implies both the positive and negative faces of the scientist. Just as a person may build and test theories "just like a real scientist," so they may also deny or distort data or even refuse to experiment, in order to protect their theories—again "just like a real scientist." A person may be a scientist, but a scientist is also a person.

Fransella, in the article referred to above, describes Kelly as a "psychological physicist" (Fransella 1983, p. 135) and attempts to illuminate what sort of science he might have had in mind in his use of the metaphor. She compares Personal Construct Theory with David Bohm's notion of implicate order in a way that supports the view that if scientific knowing is a way of pursuing our relationship with the natural world, then there is always more to that relationship than can be held by the formal structures of our science. The whole discussion is summed up in her translation of a quotation from Bohm into the language of Personal Construct Theory (ibid., p. 133).

The relationships constituting the fundamental law are between the enfolded structures that inter-weave and inter-penetrate each other, throughout the whole of space, rather than between abstracted and separated forms that are manifest to the senses (and to our instruments). (Bohm, p. 185).

becomes,

The relationships constituting the fundamental law are between the enfolded constructs that inter-weave and inter-penetrate each other, throughout the whole of the construct system, rather than between elicited and laddered construct relationships that are manifest to the senses (and to our grids).

I would, of course, argue that "the whole of space" is not only "the construct system" but the whole space of embodied meaning, or else that it is to the latter that "the whole of the construct system" really refers. This leads immediately to the second form of the question, How is Personal Science "personal?" Two authors who have explicitly taken the matter of embodiment to be central to the matter of a whole construing person are Miller Mair and Phillida Salmon. Mair writes passionately

about the "radical implications" of taking seriously the idea that knowing is "knowing personally" (Mair, 1985). In "The Community of Self" (Stringer and Bannister, 1979) he takes such situations as finding myself to be "of two minds" about something as the impetus for considering the usefulness of construing myself as a "community." He pursues this metaphor out of a belief "that many of the possibilities in Kelly's writings are almost unreachable at present because of the route by which we approach them." In practice it seems that, just as Kelly's constructive alternativism rests on an assumption that there is a reality which we construe, so construing myself as such a community of selves seems most useful in the context of an appreciation of the unity behind them. This is particularly so since, as Mair emphasizes, Kelly's theory is not about cognition or behaviour only, but is a theory of action.\(^{31}\)

Particularly in "The Personal Venture" (Mair, 1979, p.35-47) and in *Between Psychology and Psychotherapy: the poetics of experience* (Mair, 1989) Mair argues, in effect, that the classical challenge to "Know thyself" is more costly and more perilous than we often recognize—which is why so few people accept it. Much of what we think of as knowing involves a great deal of not knowing, even of protecting ourselves from what it seems too costly to know. However, though it may be possible to conceive of "knowing that" or of "knowing how" in ways that seem to distance our knowing from the core of ourselves, "knowing as living personal experiencing" is another matter—knowing as being present in our own lives. It is the challenge to Kelly's construing person who "becomes a significant event" in their own experience. Indeed, for Mair "personal knowing is wider than impersonal, not narrower" (Mair, 1989, p.13). Objective knowledge of any sort is always a personal matter, and sometimes intensely so, simply because "the act of objectifying is a personal act" (Mair, 1979, p. 40).

Personal knowing takes all of you, all your sensibilities are relevant. Body as well as brain, feelings as well as intellect, reaction as well as reflection are involved. (Mair, 1979, p. 43)

I'm not suggesting that anyone give anything up or stop doing what they value. I am suggesting that we take something more on board, so that our acts of knowing are owned as well as whatever objects we create from them. It is a widening of attention that I'm suggesting, so that we sense more of what we already do. (Mair, 1989, p. xiv)

\(^{31}\)Cf. Radley's argument in "The Opposing Self," that the most productive focus of our investigation is not so much a person's constructs, or the construction of an opposing "self," but rather the act of construing. (Radley, 1978)
In characterizing a “conversational psychology” he says that, “It will be about close-up knowledge, knowledge that affects the knower. It will be knowledge in practice (not applied to practice).” (ibid., p. 216) This is certainly the sort of knowing referred to by both Dewey’s phrase, “thinking in activity,” and Merleau-Ponty’s, “knowledge in the hands.”

Phillida Salmon’s *Living in Time: a New Look at Personal Development* includes a chapter titled “Embodied Living” in which she examines some implications of the ways in which we construe our own bodies, especially as we age. Though such curious statements as, “Some individuals live in close communion with their bodies” seem to reveal that she continues to face the same basic dualism that she seeks to illuminate, the chapter lays out some of the ways in which we are limited by the common construal of our bodies as a sort of entity separate from ourselves which we struggle to control. They seem to become more recalcitrant with age, never quite doing what “we” want them to, and at times through their unconscious expressions subversively contradicting what we consciously intend. By pointing out that these experiences are the consequences of our ways of construing our own bodily experience, she frames an invitation to reconstrue that experience, and thus our own physical selves. Further, she notes that there are ways of generating new experience that can open us to such reconstruing and that, having engaged in them for a time, it is possible to find that,

> somehow you have come to gain access to your own experience, to achieve a greater grasp of your own life. In this, you have acquired a kind of personal freedom, through which you are, potentially, less imprisoned in the shackles of habitual reactions. (p. 100)

Though Salmon invites us to consider our own embodiment as a matter worthy of reconstruing, it is much more than that. In light of what Mair had to say about the intensely personal nature of knowing, our embodiment may be seen as the central matter of construction, the central context of all construing. If construing, like objectifying, “is a personal act,” it is an act performed not by a self who “inhabits” a body, but by a person whose embodiment is inseparable from their existence. Of course, as in any domain, we are free to construe the physical dimensions of our experience in relation to the “bodies” which we “inhabit,” but as always, such a construction has consequences. What I have sought to in this work is to develop a conversational framework for personal inquiry into these dimensions of my experience. In relation to the issues raised by Mair this framework is intended to sustain the primacy of personal knowing by making explicit the interplay between the dimensionality of experience and its continuity in action. It may be that as we become more articulate we will become more courageous in pursuing our inquiry
into ourselves. It may also be that as we become more articulate, both in our
description and in our action, we will find the freedom Salmon spoke of as we
embody more integral constructions of our own selves.
Chapter IV

IV: THE POSTURE OF ANTICIPATION: KELLY AND ALEXANDER

"The posture of anticipation...silently asks questions, and earnest questions erupt in actions."

(Kelly, 1969 p.31).

IV.1 Earnest Questions

Our actions, be they verbal, mental, bodily or whatever, be they directed toward ourselves, other people or the physical world, pose “earnest questions” to our world, and thus each action is taken in anticipation of a reply. Every action a person takes, whether an action commonly thought of as thinking, perceiving, moving or even the act of constructing personal meaning, is an act of that person as a whole and thus is expressive of the conditions of the coordination of the whole person. Although methodologies such as, for example Kelly’s repertory grids, tend to force us to focus on certain explicitly expressible aspects of a person’s construing, we are all reminded from time to time of the deeper dimensions of our conversation with the world. There is open to us a wider sense of construing of a person’s situation, which encompasses the whole of their thoughts, feelings and actions in a single field, one which does not take Kelly’s phrase, “posture of anticipation,” to be merely metaphorical. What has been lacking however has been a practical means of pursuing that wider view. One of my central arguments is that the core of such a means is to be found in the work of F. Matthias Alexander. In this section I will provide a basis for considering Alexander’s work from the perspective of Kelly’s personal construct theory (and vice versa) in order to produce an approach to a wider view of both bodies of work. I have enlisted John Dewey to act as a bridge between the two.

The germ from which Personal Construct Theory grows, Kelly’s Fundamental Postulate, states simply that “a person’s processes are psychologically channelized by the ways in which he anticipates events” (Kelly, 1963, p.46). What I want to do is open a fresh consideration of the particular significance of the words “processes” and “psychologically” and the way Kelly explains his use of them. He makes it quite clear that “processes” is intended to refer to the actions of the person as a whole “behaving organism.” He goes so far as to say that, “For our purposes, the person is not an object which is temporarily in a moving state but is himself a form of motion” (ibid., p. 48). Regarding the word “psychologically” Kelly means “that we are conceptualizing processes in a psychological manner, not that the proc-
esses are psychological rather than something else” (ibid., p. 48). The Postulate does not say that a person’s psychological processes are channelized, but that the person’s processes, in the sense of the whole of their actions, are channelized in ways which may be construed psychologically. What is being delimited is our way of attempting to construe a person’s processes and not the processes themselves.

The whole notion of “Psychology” is based on the observation of “mental” or “psychological facts” which we find it convenient to construe “psychologically” as distinguished from facts which are “physical” or “physiological” and thus more conveniently construed within a system of “natural science” constructs. The ranges of convenience of these alternate construction systems are not, however, exclusive. As Kelly points out, “the events upon which facts are based hold no institutional loyalties” (ibid., p. 10). A person’s processes might be fruitfully construed physically, psychologically or both, but the processes themselves are, “something else.” In Kelly’s terms, it is the constructs and not necessarily the elements that are psychological. Constructs, as the psychological dimensions of whole experience, are the ways in which we may anticipate that an element of experience will be like or not like other elements. The essential point is that we need not construe them as being psychological in order to construe them psychologically. In practice, however, it seems to be rather easy to miss this distinction and to treat personal processes as if they could be sorted into distinct “mental” and “physical” categories (standing, walking, making a tennis stroke, etc. being physical; thinking, perceiving, construing, etc., mental). Of course we may sort them thus, but there is always a price to be paid. It may be convenient to view events in the first set from the perspective of physics, biomechanics, etc. and the second set from a psychological perspective, but we encounter many events which fall in the borderlands between the two realms. Are drawing a landscape from memory, improvising at the piano or making a presentation at a conference, or for that matter, sitting at a computer, composing a doctoral dissertation, mental or physical acts? In regarding these borderland acts, and especially when I, as a living person regard my own acts, the issue becomes not only the value of recognizing that I may construe events in either way, but that “mental-physical” is itself a very pervasive construct which may have become “inconvenient.” Constructs are abstractions in that they are drawn from experience and are not prior to it. Yet this abstracting is a two way process—elements of experience lead to abstract concepts which become a framework that structures experience. A preferred set of dimensions, that is, an habitual way of anticipating the consequences of my actions, amounts to a constructive “posture.” This “posture of anticipation” is a stance taken up by a whole person in relation to their environment and is as physical as it is metaphorical. Every act, including the act of construing, that is, of placing an
interpretation on events, is an act of the whole person— in other words, meaning is embodied.

To anyone familiar with Kelly's perspective, this may seem obvious. What is called for, however, is a practical way of taking the obvious into account in order to transcend it. Kelly himself asserts the essential scientific humility of his psychology of personal constructs by noting that "no one has yet proved wise enough to propound a universal system of constructs," (ibid., p. 10) and then recognizing the constant need to be careful in our application of our "miniature systems." What an individual person needs is not so much a personal version of a universal system of constructs but a means of continuing the "conversation" about their own meaning—both the "explicitly formulated" or verbally expressible and the "utterly inarticulate" meanings which are embodied in the organization of their actions. This is no easy task. Emphasizing that since "many of one's constructs have no symbols to be used as convenient word handles," it is difficult to bring them within the organization of the "verbally labelled parts of the system," (ibid., p. 110) Kelly notes that this makes it very difficult to be articulate about how one feels or to predict one's future actions. For example,

A person may say that he will not take a drink if he is offered one tomorrow. But when he says so he is aware only of what he can verbally label; he is not fully aware of what it will be like tomorrow when tomorrow's situation actually confronts him. The situation which he envisions is, to be sure, one in which he would not take the drink. But the situation which actually rolls around may loom up quite differently and he may do what he has promised himself and others he would not do. There may be a failure of his structure, or, more particularly, that part of it which is verbally labelled, to subsume adequately certain aspects of the rest of the system. (ibid., p. 110)

It is little wonder that we so often seem to others to be unwilling, and to ourselves, unable to reconstrue our situation—or to do very much to change matters. Often the only parts which we can conceive of reconstruing are those parts which we can explicitly become aware of having construed, and so long as the conversation is limited to the verbal or conceptual domain, too much of our construction lies hidden in the inarticulate. We cannot reflect on this unarticulated experience because we lack a language in which to converse about it. Kelly says that the reality of a concept "exists in its actual employment by its user" (ibid., p. 106). But to employ a particular construction is to act out of a commitment to it, not merely to project it into some disembodied abstract space. Meaning, for me, is a relationship between myself and the situation in which I find myself and in which I must act. The construction of
meaning has to do not only with the anticipation of events, but with anticipated action. Thus an action is not only a behavioural "experiment," but my engagement in conversation with my world, and an event in my experience is not only the result of an experiment, it is a response. To act out of commitment to a construction is to "live in anticipation" of that response. The task at hand is to find a means of bringing my part in the conversation to a more reflective level. We shall see that Alexander provides a means for meeting just that task.

IV.2 "Body" and "Mind"

In my view John Dewey provides a natural bridge between Kelly and Alexander. Kelly says of Dewey that his "philosophy and psychology can be read between many of the lines of the psychology of personal constructs" (ibid., p. 154). He finds Dewey's view "that we understand events through anticipating them" (ibid., p. 157) beneath his own claim "that our lives are wholly oriented toward anticipation of events" (a claim with which Dewey would have agreed). I have already cited Dewey's biographical statement that his ideas of mind-body etc. required his work with the Alexander brothers "to transform the into realities."

In a talk given to the New York Academy of Medicine in 1927, Dewey discussed what he considered the vital importance of the issue at hand. After lamenting the fact that the mind-body split is so pervasive in our experience that we seem to have no way of even expressing the unity except by such hyphenations as "mind-body," which actually serve to perpetuate the split, Dewey proposed that the way out the trap is to centre our attention on "unity in action." And he felt it vitally important that we do find a way out. The talk was later published under the title, "Body and Mind." (Dewey, 1931, p. 299) He writes,

Thus the question of integration of mind-body in action is the most practical of all questions we can ask of our civilization...Until this integration is effected in the only place where it can be carried out, in action itself, we shall continue to live in a society in which a soulless and heartless materialism is compensated for by a soulful but futile idealism and spiritualism...for materialism is not a theory, but a condition of action...and spiritualism is not a theory but a state of action. (ibid., p. 304)

It is precisely in the practical continuity of human action that Dewey finds the unity of mind and body. Indeed, he finds in the degree of their unity that is evident in our actions, a measure of humanity.
The more human mankind becomes, the more civilized it is, the less is there some behaviour which is purely physical and some other purely mental. So true is this statement that we may use the amount of distance which separates them in our society as a test of the lack of human development in that community. (ibid., p. 304)

In order to find this unity, or rather this continuity, of mind and body in action, we must be able to distinguish other dimensions of meaning within our actions.

We need to distinguish between action that is routine and action alive with purpose and desire; between that which is cold, and as we significantly say inhuman, and that which is warm and sympathetic; between that which marks a withdrawal from the conditions of the present and a retrogression to split off conditions of the past and that which faces actualities; between that which is expansive and developing because including what is new and varying and that which applies only to the uniform and repetitious; between that which is bestial and that which is godlike in its humanity; between that which is spasmodic and centrifugal, dispersive and dissipating, and that which is centered and consecutive. What most stands in the way of our achieving a working technique for making such discriminations and applying them in the guidance of the actions of those who stand in need of assistance is our habit of splitting up the qualities of action into two disjoint things. (ibid., p. 305)

It is certainly possible to read Kelly’s ideas between the lines here and say that Dewey is speaking for an alternate way of construing the quality of human action. But why do we then seem to be “unwilling to reconstrue” ourselves and our actions in this new way? Dewey points us in Alexander’s direction in search of an answer when he refers to Alexander in pointing out that,

Until we have a procedure in actual practice which demonstrates this continuity [of mind and body], we shall continue to engage in some other specific thing, some other broken off affair, to restore connectedness and unity [and thus] increase the disease in the means used to cure it. (Dewey, 1958, p. 296)

IV.3 A New Field of Inquiry

The opening chapter of The Use of the Self, “The Evolution of a Technique,” (Alexander, 1932) is Alexander’s own account of how he came to develop just such a procedure. In 1890 F.M. Alexander was a young Australian with a promising career before him as an actor and recitationist. He was, however, plagued by one serious, recurring difficulty—at some point during an evening on stage, his voice would become hoarse, sometimes so much so that he could scarcely speak by the end of the performance. His doctors could find nothing medically wrong and could ad-
vise no treatment beyond rest for his voice. After this happened at one particularly
important engagement, young Alexander decided to find out for himself just what
was causing his troubles and what he might do to prevent their return. He reasoned
that as he only had his vocal difficulty while on stage, there must be something dif-
ferent about the way he used his vocal mechanism in the act of reciting that caused
his trouble. His years of patient self-observation opened up what he saw as a "new
field of enquiry" about the "psycho-physical" functioning of the human individual as
a whole. His investigations produced a set of principles and an evolving method of
putting those principles to practical use in daily activity. What Alexander discovered
about himself was that his difficulties, and the means for addressing them, could not
be separated into distinct categories of mental and physical. He found that every
specific act was taken in the context of the functioning of the entirety of his "psycho-
physical mechanisms" and thus that the quality of every act was determined by the
conditions of the coordination of his whole self. This proved to be equally the case
for the "mental" conception of the act to be performed, the "physical" movements
made in carrying out that conception and the "sensory appreciation" by which he
judged the fit between the two.

He found himself in the midst of a serious dilemma, however. Having be-
come accustomed to performing the act of reciting in his familiar way, his sensory
appreciation had become as habituated as had his muscular efforts. Thus even when
he had demonstrated that he was not doing what he thought he was doing, it never-
theless "felt right." Worse still, he found that at the "critical moment" of actually
initiating some movement, the moment, as he experienced it, of putting his intention
to speak into practice, he relied on that very same faulty sensory appreciation to
guide his action. These habitual patterns, both the specific patterns which defined
acts such as "reciting" and the more general patterns which constituted what he
called the "general manner of use" of himself, involved components which interfered
with the very coordinating processes which otherwise would have brought about the
result he desired. One could suppose that Alexander might have elicited a set of
constructs underlying his conception of, for example, the act of reciting, a set of
kinesthetic dimensions of how various ways of "using" himself in speaking differed
from one another. From the perspective being developed here, however, his
construction of any particular act to be performed would be inseparable from his
construing of himself in the performance. This would include the interpretation pro-
vided by his sensory appreciation and thus would be in large part what might be
termed a kinesthetic construction. To be capable of performing an act in a different
way was also to conceive of the act itself differently—and thus to reconstrue himself
in the doing. This he found himself unable to do. Indeed, he labelled as a "delusion
which is almost universal” the assumption that because we find ourselves able to act at will in carrying out familiar habitual acts, we expect to be equally able to do so when the act we conceive is unfamiliar and counter to our habit. No matter how he might reconstrue the act at a verbal level by telling himself to do it differently, when the moment came and in spite of his best efforts, he carried it out in the familiar way. In fact, he discovered, the situation was worse; it was because of his effort that he found himself trapped in the familiar, and the greater the effort, the more he seemed dominated by his habit and the greater the amplification of the interference with his natural functioning. This is a phenomenon Alexander termed “end-gaining” and it proved to be the root cause of his original vocal problem. Eventually Alexander came to realize that his original hypothesis had been only partially correct on two counts. It was not only his vocal apparatus that was involved, and not just in the act of reciting, but his habitual use of his whole self in every act he performed. It was the malcoordination inherent in his everyday speaking habits, amplified by the effort of “reciting” as he construed it, which resulted in his loss of voice.

How are we to account for this inability to change? The situation is very similar to that in Kelly’s example of taking a drink. In effect, when a way of acting becomes habitual all of the constructs used to conceive it become subsumed under the single kinesthetic construct “feels normal–feels not normal” or to use a common alternate label, “feels right–feels wrong.” As Alexander wrote, “The act and the particular feeling associated with it become one in our recognition” (Alexander, 1923, p. 132). We might also say that the associated feeling, as an element of experience, becomes a figure symbol for, and thus hides, the whole system of underlying constructs. The situation is self-perpetuating because continuing to act in commitment to that construction makes extremely unlikely just the sort of “unfamiliar sensory experience” which could provide the basis for significant reconstruction. Kelly refers to habit as “a convenient kind of stupidity which leaves a person free to act intelligently elsewhere.” But he adds, “whether he takes advantage of the opportunity or not is another question.” (Kelly, 1963, p. 169) In Alexander’s view this failure to take advantage is not a matter of mere oversight. When what we hold fixed is just those aspects of our whole functioning which could coordinate our response to

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32There is a very similar illustration in chapter II of Dewey’s Human Nature and Conduct where he writes of the man with a drinking problem, whose every effort to stop simply becomes another stimulus to drink. His drinking habit, Dewey says, is not merely a matter of failure “to drink water.” It is an active predisposition to a certain course of positive action under certain conditions. Dewey’s description, explicitly based on his view of Alexander’s work, is a practical prescription for reconstruing our situation as a whole, not only the verbally labelable parts.
changing conditions and requirements, we hold ourselves in that unfortunate state in which our every effort to improve makes our situation worse:33

The truth is that so far man has failed to understand fully what is required for changing habit if the change is to be a fundamental one because he has not realized that the establishment of a particular habit in a person is associated in that person with a certain habitual manner of using the self, and that because the organism works as an integrated whole, change of a particular habit in the fundamental sense is impossible as long as this habitual manner of use persists. (Alexander, 1941 p. 93)

It doesn’t matter what sort of habit we are speaking of. Chronic muscular patterns, stereotyped reactive behaviours and rigid opinions or “fixed ideas” are all examples of the same phenomenon, and, as Alexander noted,

...the majority of people fall into a mechanical habit of thought as easily as they fall into the mechanical habit of body which is its immediate consequence. (Alexander, 1910, p. 20)

Fixed construction, the inability to reconstrue one’s situation, can also be seen as habitual in Alexander’s sense. That is, it is just the doing—in this case construing—in the old way which prevents a person from being able to even fully conceive of, let alone carry out, doing in a new way. More precisely, in Alexander’s view, it is the fact that the old way, however obviously unsatisfactory we may know it to be, “feels right” to us. We know we are performing a particular action “our way” by how it feels, and this feeling is a sensory interpretation which we place on our own physical response to our situation. It is itself constructed and constructive. When I am faced with a stimulus from my environment, I respond, in ways channelized by how I have construed the stimulus. What I “feel” is my sensations of my own response. I perceive my own movement. But I also construe the meaning of that feeling (sensory appreciation) and my awareness of “how I feel” becomes itself a stimulus to further response. I had a student once who, after working with me for several minutes, was able to release a good bit of habitual excess tension, particularly across the upper part of her chest. Her movements took on a freedom and quality of softness and grace that were immediately recognizable by her and her friends who were watching. But then she put her hand to her chest and said, “You know what this is.” We were all puzzled, wondering what “this” referred to. We were even more puzzled when she continued, “This is defeat.” Here was a person who on several occasions in her life had felt a need to be “strong”—and had done so in part by means of a certain

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33This situation is illustrated by the novelist in the second session on the videotape in Appendix 2.
pattern of pushing and holding up her chest. It had been, unnoticed by her, her way of embodying her concept of strength. The only times when she was without the feeling which she associated with this unconscious push had been on those occasions when her strength had not been enough and someone or something had “defeated” her. Hence, when in the context of an improved general coordination she was able to give up her push, at first the only available interpretation she could find for the absence of the associated feeling was a construal based on past kinesthetic experience. What looked to us like power and freedom, and despite the fact that she “knew” that it was, nevertheless to her “feelings” literally meant “defeat.” I have seen many other similar, if usually less dramatic, examples of this sort of kinesthetic conception. The change in, for example, a person’s way of standing, is already the embodiment of a reconstrual, and the same context of general coordination within which it was possible also permits a reinterpretation of the meaning of the feelings that the change elicits. My defeated friend was able to recognize her felt interpretation as such. She was able to feel what she felt and at the same time to appreciate that the feeling (or more properly, the meaning she attributed to what she felt) was in essence an opinion she held and was itself open to change. It is often claimed that emotional memories etc. are somehow “stored” in a person’s body, and thus can be “released” when changes are made. What I have found in this and similar episodes is that rather than being stored in the tissue these states are embodied in dynamic patterns of movement. Thus to move differently is already to embody a reinterpretation.

This doubly constructive process is elaborative. In principle, it may be either expansive or constrictive depending on the stance taken. To be habitual is, in Kelly’s terms, to expect the duplication of events rather than anticipating their replication.34 It is to see, and respond to, every event as a repeated instance of

34There is a terminological difficulty which bears some mention here. The term, “habit,” as used by Alexander, and somewhat by Kelly, tends to carry the common, narrow sense of a routine or robotic pattern of behavior. Even when Alexander speaks of one’s “general manner of use of the self,” the underlying construct could be alternately labeled as “habitual” vs. “non-habitual” or as “habitual” vs. “consciously directed.” There is a wider sense of habit, however, which underlies much of the philosophy of Dewey and of Merleau-Ponty, habit as the basis for our inhabiting the world in which we act. From this wider perspective it is evident that when I escape from a particular dominant habitual pattern, however general, I do not become free of habit, but rather I come to a condition in which my present response to my world is the product of one of the interplay of all of my habitual dispositions taken together. Thus for Dewey being “consciously directed” is not the opposite of being habitual; it is simply being intelligently so. To move beyond habit in the narrow sense is not to be freed from habit but rather to become free to embrace its wider dimensions.
something already known. Alexander saw it as a failure to recognize the psycho-
physical unity of our self in action:

...man’s most tragic mistake has been his failure to acquire knowl-
edge of himself as an individual functioning as a psycho-physical
whole in his daily activities, for this has deprived him of the key to
knowledge which could give him a new technique in living
(Alexander, 1941 p. 218).

Whatever insights this discussion might provide into how we trap ourselves
in this constrictive choice would be of only mild interest and indeed, would be, in
Alexander’s opinion, so much “useless philosophical speculation” unless it helped us
come into possession of a means for doing something about it, a means for demonstrating the continuity of mind and body in practice. It was the possession of such a
means that was Alexander’s goal:

...I was concerned with a technique for dealing with the working of
the living human organism as a whole, which called for a knowledge
of the so-called mental (psychological) and the physical
(physiological and anatomical) working of the human organism as an
indivisible unity. (ibid., p. 135)

In essence, what Alexander developed was a coherent way of implementing
the experimental method in the context of that indivisible unity, a comprehensive
method for being a “personal scientist” regarding the “new field of inquiry” of the
directing of our own actions, and thus a context within which certain kinds of re-
construing can take place. Among the conditions which Kelly discusses as
“unfavourable to the formation of new constructs” is the unavailability of a labora-
tory, a space in which to “try them out” (Kelly, 1963 p. 169). But a laboratory situ-
ation implies that there is not only a space in which to experiment, but also a method
of experimenting. If we recognize that when Kelly speaks of anticipating or constru-
ing he is not referring to “mental” acts, but to acts performed by the person as a
whole in relation to their situation, and if we further take explicit note of the fact that
such acts, like any others, involve just that “unity of mind-body in action” to which
Dewey referred, then Alexander’s work can be seen as providing just the sort of
experimental method needed for the laboratory of new constructs. Such a method
will prove equally vital whether the matters being reconstrued are those commonly
thought of as physical, mental or otherwise.
IV.4 All Together, One After The Other

It is easy to see how a rigid habitual stance also sustains Kelly’s other two unfavourable conditions. We find it difficult to reconstrue in a context of “threat.” In our ordinary habitual mode, where there has been a reduction to the “feels right vs. feels wrong” construct, any new, unfamiliar experience can only “feel wrong.” Thus any unfamiliar new sensory experience is by construction, threatening. Also, if the primary kinesthetic criterion for evaluating the performance of any habitual action is that it feels essentially the same as it always has, we are kinesthetically always preoccupied with “old material.” Construing is an abstractive process of interpreting experience in terms of similarity and difference. Habitual action, by focusing us on what feels the same, “marks a withdrawal from the conditions of the present” by attempting to escape their uniqueness. It is as if the dimensions of the familiar so dominate a person’s experience that they have no access to the very fresh material in the present conditions which might lead them to a new construction. A common, but nonetheless curious, illustration of this channelling of experience is seen, or rather heard, in the case of phonological differences between languages. In English the letters /l/ and /r/ represent distinct phonemes. Native Japanese speakers have notorious difficulty with the pronunciation of these sounds. The situation is more subtle than it at first appears, however. The “obvious” explanation for the Japanese speakers’ difficulty is that their native language does not have a phoneme corresponding precisely with either the English /l/ or /r/, and thus, if they have learned English later in life, they lack the requisite experience with producing those sounds and therefore often interchange them. Japanese does have a phoneme which does not precisely correspond with either /l/ or /r/, but, from the English point of view, lies somewhere between them. The influence of their experience with this phoneme in their native language does lead to an imprecision in producing the English sounds. What is most curious, however, is the experience of the native English “listener.” It is as though their auditory perception system includes a construct that could be labelled “sounds like /l/-sounds like /r/.” Or rather, if for example hearing the word “around” and thus anticipating the sound of /r/, there is a simultaneous use of two constructs—the one above and another, “sounds like /r/-sounds not like /r/.” The effect then is that any sound that is not quite the anticipated /r/ sound is perceived as an /l/. Similarly any imprecise pronunciation of /l/ is perceived as an /r/. The hearer of course attributes the switching of the phonemes to the speaker. The same switching often occurs when native Spanish speakers pronounce the English /b/ or /v/, and of course with native English speakers trying to pronounce the Japanese or Spanish phonemes. What is strange is that any sound which is not quite right should always sound like
the “wrong” sound. Similarly, any feeling we have in association with our action which does not quite “feel right” tends to feel “wrong” rather than “nearly right.”

There are, however, some conditions which are favourable to the formation of new constructs: use of fresh elements, experimentation, and availability of validating data. (ibid., p. 161) Alexander’s experimental technique meets each of them. The experimentation, by achieving a means of using aspects of one’s physical experience normally frozen in habit as validating data, provides a context within which the fresh elements of unfamiliar sensory experience become possible. Indeed, as I will discuss later, this is precisely what Dewey found most significant about Alexander’s work. It is a method for generating new experience, and what is more, a new kind experience.

There is, I believe, one more significant parallel to be drawn between Kelly’s insistence that it is only by engaging in the full cycle of experience that we begin to see the significance of a person’s construing, and Alexander’s insistence that it is only in relation to the use of the self as a psycho-physical whole that any specific act has meaning or utility. In Kelly’s case it is not merely the whole of experience that matters, but the whole cycle of experience. To Alexander, an individual is not only “whole,” but an organized whole, and it is attention to the organizing principle of the functioning of the whole that is the key to his experimental “new technique in living.” For both men there was a clear sense that a person’s processes are both integral and sequential—in a phrase Alexander liked to use, “all together, one after the other.” The implicit logical structure of these processes is what I refer to as “conductive,” and from the present perspective a person’s dynamic engagement with that logical structure is an engagement in “conductive reasoning.”

It is in this interplay of thought and action, of the ways in which meaning is embodied and bodily action is meaningful, of the all together and the one after the other of our “posture of anticipation,” that a view which is both constructive in Kelly’s sense and psycho-physical in Alexander’s promises to be very fruitful. As a person reflects upon their own construing, the more dimensions of that process that can be brought explicitly into the conversation the better.

35The case of Arthur Keostler, mentioned earlier, is a somewhat related phenomenon.

36See “A Conversational Introduction to Conductive Reasoning” for the derivation.
Chapter V

V: EVOLUTION OF A TECHNIQUE AND A TEACHING METHOD

V.1 The Alexander Technique as Conversational Personal Science

Alexander, though neither trained nor working within the scientific community, took pride in the assertions of Coghill, Sherrington and others concerning the scientific character of his work. There has been, in addition, a good deal of effort and discussion among his supporters in the years since to establish its specific benefits and, for example, the physiological reality of "primary control." However important the principles Alexander discovered may turn out to be, that they are "in harmony with what physiologists know about the muscular and nervous structure," (Dewey, Introduction to The Use of the Self, p. xvi.) does not imply that Alexander’s work was itself “scientific.” Newton’s laws of motion are certainly “scientific principles” of the first magnitude, but what was most important about Newton’s work was not the laws themselves, but the systematic methods that he developed to establish them. Dewey, in particular, was convinced that Alexander’s work has a similar character and potentially a similar value. Dewey’s colleagues and students always assumed that his support for Alexander was merely an expression of gratitude for certain physical relief that he had received, but Dewey’s own view, expressed consistently in his introductions to Alexander’s books and elsewhere, was that what was important about Alexander were precisely the philosophical consequences of the practice of his work and its “unwearied” experimental character. Jones refers to Alexander’s technique as “nothing more than the application of experimental method to problems of everyday behaviour.” (Jones, 1976, p. 160) From that viewpoint, Alexander can be viewed as unique kind of “personal scientist.” In this section I want to return to the question of just what it was that Dewey saw in Alexander’s work beyond the specific benefits of his technique. Drawing primarily from Dewey’s introductions to Alexander’s books, I will consider this scientific character of Alexander’s work and its importance as such an experimental method for a science of personal action.

The scientific method is generally understood in the natural sciences to consist of a series of interrelated steps:

37See e.g. Jones, 1976 and Garlick, 1990
1. Observation—we observe some phenomena of interest, gather and attempt to interpret our observations. (Note that even our most basic observations are conditioned by our prior habits of perception and our earlier theories.)

2. Theorizing—we build a theory to account for the apparent order in our observations. (Note that what kind of theory seems reasonable to us is conditioned by our prior experience and observation.)

3. Hypothesis—we use our theory to propose claims about possible new observation. That is, we anticipate the character of new experience.

4. Experiment—we devise and carry out experiments, which are essentially procedures designed to give us new experiences of events as they would not ordinarily happen, to test whether our hypothesis is borne out.

1. Observation—our experiments provide new observations which may or may not support our hypotheses, may or may not fit our current theory.

Since observation is both the first and last step in the procedure, the scientific method is an endless cycle of exploration rather than any kind of completed package, and the process results not in an ever-rising pile of fragments of "truth," but rather in a series of constructed theories that are ever more effective approximations to truth, what Plato called "likely stories." This situation is what Kelly calls "constructive alternativism." As he characterizes it in "The Psychology of the Unknown,"

Our venture as scientists, then is not to press with one hand on what is presumed to be known for sure and reach out with the other into the unknown for more bits of the puzzle, but rather to proceed from propositions which are admittedly faulty, in the hope that we can complete fully the experiential cycles which will enable us to formulate new propositions that are perhaps less faulty.

The central point of Dewey's argument, in the introductions to Constructive Conscious Control of the Individual and The Use of the Self, is that it is precisely in

38Two points about this basic description: First, many practicing scientists consider this "classical" description to be oversimplified if not naive. However, if the four phases are viewed as dimensions of the process of scientific effort rather than as non-overlapping sequential stages, then it still provides a good basic description of the essence of experimental science. Secondly, Thomas and Harri-Augstein's proposal of a conversational science paradigm as an alternative to either the objectivist natural science or the subjectivist personal science paradigm by no means calls on us to abandon this fundamental framework. Conversational science is both natural and personal. Indeed it is simply the recognition of the unity of a natural world that includes in it sense-making persons. A personal science that is cognizant of myself as an embodied subject cannot be a science without being conversational.
the bringing together of observation and principle that the scientific character of Alexander’s work is to be found.

Those who do not identify science as a parade of technical vocabulary will find in this account the essentials of scientific method in any field of inquiry. They will find a record of long continued, patient, unwearied experimentation and observation in which every inference is extended, tested, corrected by further more searching experiments. (Alexander, 1932, p. xiv.)

Any sound plan must prove its soundness in reference both to concrete consequences and to general principles. What we too often forget is that these principles and facts must not be judged separately, but in connexion with each other. Further, whilst any theory or principle must ultimately be judged by its consequences in operation, whilst it must be verified experimentally by observation of how it works, yet in order to justify a claim to be scientific, it must provide a method for making evident and observable what the consequences are: and this method must be such as to afford a guarantee that the observed consequences actually flow from the principle. And I unhesitatingly assert that, when judged by this standard, that is, of a principle at work in effecting definite and verifiable consequences, Mr. Alexander’s teaching is scientific in the strictest sense of the word. It meets both of these requirements. In other words, the plan of Mr. Alexander satisfies the most exacting demands of scientific method. (Alexander, 1923, p. xxv.)

Dewey implies in these passages that it is the ongoing detailed interaction of principle and concrete observation that matters, and that the interaction is an ongoing effort, governed by an ethic:

But the essence of scientific method does not consist in taking consequences in gross: it consists precisely in the means by which the causes that are used to explain the consequences, or effects, can be concretely followed up to shew that they actually produce these consequences and no others. (ibid., p. xxviii.)

The method, what Alexander would call “working to principle,” is everything. Otherwise we have not science but merely assertion. Dewey makes a prediction:

To this process of simultaneous development of principles and consequences, used as means for testing each other, there is literally no end. As long as Mr. Alexander uses the method, it will be a process tending continually towards perfection. It will no more arrive at a stage of finished perfection than does any genuine experimental procedure, with its theory and supporting facts. (ibid., p xxxvii.)

Indeed one might even say that the importance of the principles discovered is precisely that they generate new observations, and this is the case whether it is Mr. Al-
Exander himself or any other person who uses the method. It is not enough to account for what is already known, nor to speculate about what is unknown. The experimental method is, in a sense, a bridge between the two, and that bridge must be built of real, personal experience. This is true of science generally—39—but how much more so when the subject of the science is nothing less than the scientists themselves. How can we possibly understand ourselves if we begin by taking our habitual perceptions of ourselves at face value?

This, of course, is precisely as if a scientific man, who, by a process of reasoning had been led to a belief in what we call the Copernican theory, were then to try to test this reasoning by appealing to precisely those observations, without any addition or alteration, which led men to the Ptolemaic theory.40 (ibid., p. xxxi.)

If we are to come to a fuller understanding of ourselves, much less of a world in which we play an active role, then we require new sense data. It is often forgotten that however "public" scientific knowledge may be, science is always a matter of personal experience. The problem for the scientist is often one of finding the appropriate kind of experience. What then is the kind personal experience appropriate to the study of myself as an active participant in my world, rather than an observer at some remove from it? How, as well, am I to go about gathering such data?

A scientific man is quite aware that no matter how extensive and thorough is his theoretical reasoning, and how definitely it points to a particular conclusion of fact, he is not entitled to assert the conclusions of fact, until his senses have been brought into play. With respect to distinctively human conduct, no one, before Mr. Alexander, has even considered just what kind of sensory observation is needed in order to test and work out theoretical principles. Much less have thinkers in this field ever evolved a technique for bringing the requisite sensory material under definite and usable control.... After studying over a period of years Mr. Alexander's method in actual

39 This also applies to the process of learning a science.

40 There is an interesting double irony in this last passage. For that is just what Copernicus did (though at the time, of course, he had no choice). It was Kepler's effort to make sense of Brahe's new observations which provided the evidence for the superiority of the Copernican view. Kepler's account of his struggles with these new data, and with his preconceived notions about the nature of the solution, is a very atypical scientific treatise. Rather than just giving a clear derivation of his final successful calculations, he provides a detailed account of all his blind alleys and failures. It gives an unusually full picture of the origins of what became Kepler's Laws, and is very important in spite of the fact that it doesn't "look like" a scientific paper. It has much in common with Alexander's account in "The Evolution of a Technique" (Alexander, 1932, chapter 1).
operation, I would stake myself upon the fact that he has applied to
our ideas about ourselves and our acts exactly the same method of
experimentation and of production of new sensory observations, as
tests and means of developing thought, that have been the source of
all progress in the physical sciences. (ibid., p. xxx)

V.2 Towards a New Science?

In these passages, Dewey has clearly taken the role of apologist for Alexan-
der. My intent in including them here is not to assume that role myself, but rather to
extend Dewey’s claims about the scientific character of the work to that of any indi-
vidual who is willing to carry out such an experimental exploration in their own life.
The significance of the method lies not in the fact that they were “applied to our
ideas about ourselves” by Alexander, but that it is a method that each of us may
fruitfully apply to our own. If I as an individual want to join Kelly in describing my-
self as a “personal scientist” in a way that is more than vague analogy, I require a
method. Every specific scientific discipline requires its own implementation of the
scientific method appropriate to the domain of its inquiry, its own special equipment,
experimental protocols, theoretical frameworks, etc. An experiment in astrophysics
looks very different in many ways from an experiment in molecular genetics. What
is needed for a person to live their own life, to reflect on their own experience and to
direct their own actions in a way that has a scientific character is an implementation
of the experimental philosophy that engages both the continuity and the dimension-
ality of personal experience. It is my claim that while Kelly’s personal construct
timeory provides the framework of theory and practice for conversing about the
dimensionality, a personal employment of Alexander’s method can provide a way of
engaging its embodied continuity. A personal practice of Kelly’s work and of Alex-
ander’s can be viewed as complementary components of a personal experimental sci-
ence, but if and only if each person as scientist is scientific in Dewey’s sense. An
individual person is fully a scientist in their own life only if they are living
“scientifically” in a fully embodied way.

It is clearly Dewey’s view that from a methodological stand-point
Alexander’s work is science, but more than that, it constitutes a new science. It has
importance beyond the needs of the individual. It is indeed a vital missing piece in
the larger fabric of Science, a piece that we have acquired none too soon. In a
passage which Alexander later quotes in concluding his last book, The Universal
Constant in Living, Dewey says,
Through modern science we have mastered to a wonderful extent the use of things as tools for accomplishing results upon and through other things. The result is all but a universal state of confusion, discontent and strife. The one factor which is the primary tool in the use of all these other tools, namely ourselves, in other words, our own psycho-physical disposition, as the basic condition of employment of all agencies and energies, has not even been studied as the central instrumentality. Is it not highly probable that this failure gives the explanation of why it is that in mastering physical forces we have ourselves been so largely mastered by them, until we find ourselves incompetent to direct the history and destiny of man? (ibid., p. xxxii, quoted in Alexander, 1941, p. 240)

There is much at stake in this matter of a new science beyond the development of the quality of life of an individual personal scientist. Science with a capital S is upside down. We have become slaves to our own tools—and that precisely because we have neglected the primary tool, ourselves. Our general predicament is like, in Oppenheimer's description of the nuclear arms race, being on a train careening toward a precipice—and what is worse, anything we might do about our situation only tends to cause the train's speed to increase. Our difficulty lies not in our technology, but in ourselves. What is wanted is a science of ourselves, a science that can bring us “under control” and at the same time grant us our freedom. By bringing ourselves and our own personal actions within the domain of science—or rather expanding science to encompass them—we make Science more complete and ultimately more humane:

Mr. Alexander has demonstrated a new scientific principle with respect to the control of human behaviour, as important as any principle which has ever been discovered in the domain of external nature. Not only this, but his discovery is necessary to complete the discoveries that have been made about non-human nature, if these discoveries and inventions are not to end by making us their servants and helpless tools. (Alexander, 1923, p. xxix)

One of the hallmarks of science has always been that it depended on public “objective” observations. Knowledge which I might have within myself had no place simply because it could not be shared, could not be submitted to the rigour of the scientific method. As the physicist Hermann Weyl describes it, rather plainly, in an appendix to his *Philosophy of Mathematics and Natural Science*,

The way of constructive theory, during the last three centuries, has proved to be a method that is capable of progressive development of seemingly unlimited width and depth; here each problem solved poses new ones for which the coordinated effort of thought and experiment can find precise and universally convincing solutions. In contrast the scope of understanding from within appears practically
fixed by human nature once for all, and may at most be widened a lit-
tle by the refinement of language. (Weyl, p. 283)

Dewey’s claims for Alexander’s work imply that it provides nothing less than
a means of applying “coordinated effort of thought and experiment” to
“understanding from within.”

Mr. Alexander has found a method for detecting precisely the
correlations between these two members, physical-mental, of the
same whole, and for creating new sensory consciousness of new atti-
dudes and habits. It is a discovery which makes whole all scientific
discoveries, and renders them available, not for our undoing, but for
human use in promoting our constructive growth and happiness.
(Alexander, 1923, p. xxxii)

Dewey seems to have delighted in the opportunity to retrace Alexander’s
journey of discovery: “Each lesson was a laboratory experimental demonstration.”
(ibid., p. xvi) How could it be otherwise? From the beginning, Alexander was ap-
plying the scientific method to nothing more or less than himself. What he evolved
would remain ever after a science of the human individual, considered whole and in
action—and from that individual’s own point of view. I might add, what better vantage
point could there be for reconsidering our knowledge and use of the world out-
side ourselves? Indeed, as Dewey seems to have believed, any science which does
not find its ultimate foundation in the scientific quality of just this kind of personal
experience, and which thus ignores the “continuity of experience” cannot fail to lead
us awry in the end.

How then are we to pursue such a science? Jones described Alexander’s
contribution as being like that of Galileo’s at the beginning of modern physical sci-
cence—that of the pioneer who not only makes fundamental discoveries that begin a
new science but, more importantly, establishes methods and/or develops tools or
procedures for carrying on that new science. In physics Galileo’s pioneer role can be
contrasted with that of Newton, who brought the early discoveries together under a
comprehensive theory which in its turn laid the groundwork for an even more
detailed and fruitful method. As Jones said, the new science of individual human
action that Alexander’s work opens has yet to see its Newton. (Jones, 1974, p. 6) In
one sense, filling that role is the intent of my work, but in perhaps a more important
sense each individual who accepts the challenge of conversing about their own ac-
tions within this reflective experimental framework takes on the role of being their
own Newton.

41This can be observed in Appendix 2, especially in the fourth session on the tape.
Chapter VI

VI: COMMENTARY ON PRINCIPLES UNDERLYING THE ALEXANDER TECHNIQUE

I would now like to give a brief summary of the central principles underlying Alexander's work. The statements are drawn from Alexander's writing, but the interpretations are my own.

VI.1 Use and Functioning

...a close connection exists between use and functioning (Alexander, 1932, p. 12) [and] ...our manner of use is a constant influence for good or ill upon our general functioning. (Alexander, 1941, p. 12)

At first consideration, in view of the fact that to use is a transitive verb, the concept of the "use of the self" might seem inherently dualistic. It makes sense to say that I "use" nails to hold the boards of my bookshelf together or that I use a hammer to drive the nails. I may even say that I use my hand to hold the hammer and I use my arm to swing it. There has been, however, a subtle shift in my use of "use." For although the hammer and nails are not parts of myself, the hand and arm are. So I have in some way split myself into the "I" who holds the hammer and the "me" whose hand I use to do so. This is where we face the phenomenological distinction between being for-itself and being-in-itself in daily life. An alternative construction would be to say that I have "incorporated" the hammer in the act of using it to drive the nail. That is, rather than treating part of myself as if it were not myself I treat an external object as if it were. In either case, the central issue is the instrumentality, the drawing on available conditions, whether internal or external, and somehow directing them toward some intended end. If we focus on the unity of the action in its relation to the intention rather than on questions of self and not-self, then my use of my hand is not dualistic but paradoxical. What Alexander found in his experiments with his own actions was that the functioning of his whole self was, in Dewey's term, "instrumental." By his use of the phrase "use of myself" he was not implying a view of his bodily movements as something separate from himself but only that these movements were precisely the means to his end, and further that the quality of the relationships within this use of himself as a whole had everything to do with the quality of the outcome. Indeed we may say that it was only when he con-
ceived of his task separate from himself or his use of his vocal apparatus, for in-
stance, in isolation from the rest of himself that he was being dualistic—not in theory
but in practice.

VI.2 Primary Control

...there is a primary control of the use of the self, which gov-
ers the working of all mechanisms and so renders the control of the
complex organism comparatively simple. (Alexander, 1932, p. 59)

Every movement of a part of myself occurs in the context of the whole. For
example, if I raise my arm to take a book from a shelf, the obvious movement is that
of my arm—but there is also a redistribution of weight on my legs that accommodates
the change in my centre of gravity; some of the muscles in my upper back area may
contract to provide a stable reference from which my arm extends; some of the pat-
tern of muscular action associated with standing upright releases in order to allow a
slight lean forward. These are not things that I need to “do;” nor are the parts
involved “controlled” by the functioning of other parts. The action, as a whole, is
self-organized. If we could imagine a complex set of equations of motion that repre-
sented the change in balance, distribution of forces, etc. required to carry out the
movement, then the self-organization of the action embodies the solution of those
equations—by which I mean that there is no need to solve them nor to “apply” the
solutions. The temporal structure of the action is the solution. The equations could,
however, also contain parameters that describe conditions of the environment or of
the intended goal. The matter is only “psycho-mechanical” if the system (myself) is
psycho-physically coordinated. Alexander comments in Constructive Conscious
Control of the Individual that, though for each of us, our functioning as an organism
may be complex in that it is composed of “a large number of factors or means which
are related to one another,” it is, in “the act of using them...one and simple.” The
working of these “psycho-mechanical structures” is only complicated when they are
“out of order.” (Alexander, 1923, p. 14) This is the fundamental level of what
Dewey was referring to in his insistence that we must seek “the unity of mind and
body in action.”

This complex simplicity of natural coordination is for each of us a ready to
hand paradigm case of self-organization. In physical terms, or perhaps more pre-
cisely, in biomechanical terms, there are three simultaneous global functions which
must be maintained as the context for any specific action. I must continue to be
mechanically supported; otherwise I would crumple in a heap on the floor. At the same time I must continue to be balanced; otherwise I would topple over if I raised my arm. I must also be free to move various parts of myself in relation to each other in order to accomplish the intended action. I do not have three distinct support, balance and movement systems, however, only the one whole system which is myself. Thus whenever I move (which is, of course, throughout my life) various parts of myself are contributing in varying degrees to each of these functions. Naturally, the support is provided primarily by compressive forces accepted by my skeleton. There is a subset of my muscular system which has as its primary function the maintaining of the components of my skeletal structure in such an orientation that they can provide the most efficient support. Other muscles are then free to produce movement around that support. As my relationship to the conditions of my environment (such as gravity, or the surface I walk on) change, a given muscle may be recruited into either the support, balance or movement function or some combination of these. The ability to seamlessly pass these functions among the parts of myself is one essential characteristic of coordination. A typical example of a condition of malcoordination (considered for the moment in only its mechanical dimensions) is what happens if I am already standing before the bookshelf using undue tension. I am literally pulling myself off of my optimum balance and out of the orientation where my skeletal structure can provide the required supporting forces. Following that habitual pattern then requires me to recruit muscles, primarily in my back and legs, into the support function, acting somewhat like the cables on a suspension bridge. I thus enter a vicious cycle in which it is the very excess contraction that maintains the conditions which make it necessary. Even worse, the muscles being used for support are therefore unavailable to contribute to either the specific movement of raising my arm or the general action of maintaining my balance as I do so. I am thus limited in the quality with which I can make the movement, I am working far harder than necessary to support myself during the movement and, since I do not have the flexibility of movement to make the constant small adjustments to balance that maintain my natural unstable equilibrium, I stiffen my legs and further tighten my back in an attempt to approximate a stable equilibrium. I am operating within a very restricted number of degrees of freedom, in both the mechanical and experiential terms. There is a now little used term, equipoise, which carried something of meaning I want to convey here. Among other things, it includes the idea of counterbalance, which is what head movements accomplish. We speak of a person’s head as being poised on the top of their spine. It is not merely positioned or supported, much less held—though this is often the practical effect of a rigid habitual mode of movement—but is poised. To refer to the equipoise of a person’s head is to point to
its dynamic balance, the interplay of force and counterforce, movement and countermovement. It is a balance being constantly lost and regained. The more subtle that interplay, the more poised the person is. What Alexander is referring to with the concept of primary control is that there is an intimate connection between the dynamic sense in which we might say that a person’s head is poised and the more general sense in which we would say that the person is poised. My preference for the older term, equipoise, is based on its emphasis on that interplay of influences that maintains balance by dancing on the precarious edge of imbalance which is the possibility of movement. Indeed, from this vantage point we can find a simple way to bring the natural initiation of movement within the realm of intentionality. For if this equipoise is maintained by allowing and compensating for perturbations in balance, then any perturbation not compensated is already the initiation of a movement and no further preparation of effort is needed.

“Primary control” is then but a consequence of my being a whole self-organized system faced with those multiple functional requirements. In order for me, as a single system, to continue to integrate these functions in movement, the movement itself must be appropriately organized. Alexander’s empirical observation that every action is an action of the whole person initiated by a change in the dynamic quality of the relationship between the person’s head and its support on the top of their spine may have been merely the discovery of a primary mechanical consequence of the self-organized character of the actions themselves. It is a no less powerful discovery for that. Still viewing the matter in purely mechanical terms, my head is a relatively heavy weight supported flexibly on the top of my primary support structure, my spine. It is thus the most immediately available counterbalance and at the same time its every movement affects the whole spine in both its support and balance roles. What gives this whole matter its significance is that these factors are inseparable from my very conception of any act I engage in. Whether implicitly or explicitly, consciously or unconsciously, these factors are present, and have their effect “for good or ill.” It is not a matter merely of mechanics or biomechanics; it is psychomechanics.42

42I do not intend to imply a status of any sort of absolute reality to this psychomechanical relationship. In keeping with Kelly’s position of constructive alternativism, I would only claim that although we are free to construe the organization of our own actions as we will, when put to the test in experience, differing constructions will have differing consequences (and thus differing meanings) and also differing predictive value. Thus it is not necessary to ask whether such a thing or principle as “primary control” is real. It is quite enough to use it in the invitational mode and ask whether its use leads to fruitful “earnest
VI.3 Psycho-physical unity of the individual

...Nature does not work in parts, but treats everything as a whole (Alexander, 1910, p.55) [and]...it is impossible to separate "mental" from "physical" processes in any form of human activity. (Alexander, 1932, p. 3)

In view of what was said regarding the primary control of the use of one's self in action, psycho-physical unity does not refer merely to a unity, but to an intricate, coordinated unity. It makes little sense, of course, to say that a structure is coordinated; coordination is an attribute of the functioning of a system. It is the interrelatedness of the levels of organization expressed by that functioning within some context of action—and thus is also always to do with meaning. The properties of self-organization that seem to "emerge" within the action of the individual can be seen as the product of the way we ask our questions about that action. For instance, what do we find when we consider a person as a functioning whole and then ask simultaneously about support, balance and movement? And then what do we find if we expand our use of those terms beyond their usual biomechanical range of convenience? One practical consequence is that we find available in the language of "qualitative dynamics," not a model of reality, nor even merely an invitational hypothesis, but simply a way—a sort of grammar—of carrying on a conversation about questions.” It is useful to make a distinction between prescriptive and descriptive principles. A descriptive principle is a statement about how something will behave, being the kind of a something it is, in the conditions in which we find it. Planets move in elliptical orbits around the sun because it is in their nature as massive bodies in a gravitational field to do so. They are not in any sense “required” to; they just do. A prescriptive principle on the other hand is a rule. It is a statement that something “ought to” operate in a certain way or that we consider it “good” if it behaves that way, according to the principle. Behaving honestly, taking risks or doing what “feels right” all imply prescriptive principles. There are descriptive principles underlying my functioning as a natural system. It makes no sense to speak of my violating them because they are descriptive of my very definition as a natural system. To be “unnatural” in that sense would be a contradiction. The prescriptive principles by which I organize my actions however, may or may not be consistent with those descriptive principles. In these terms what I am in essence proposing (as a descriptive principle) is that life will be better if they (that is, the principles by which I direct my actions and the principles which describe my functioning) are consistent with each other, and that we would do well to treat that consistency itself as a prescriptive principle.
the quality of the functioning of myself as a whole system. It becomes a conversation about coordination as a state of inner democracy in which any part that has a contribution to make to my intended action—no matter how physical or otherwise I may conceive that part to be, or how small or subtle the contribution—is free to make it.

VI.4 End-Gaining

[Many people employ a direct procedure when endeavouring to gain a desired end.] This direct procedure is associated with dependence upon sub-conscious guidance and control, leading, in cases where a condition of mal-co-ordination is present, to an unsatisfactory use of the mechanisms and to an increase in the defects and peculiarities already existing. (Alexander, 1923, p. 10 fn.)

This concept of Alexander’s relates directly to what Harri-Augstein and Thomas refer to as “personal robots” in Learning Conversations. If my attention is focused tightly on my end, or what is worse and perhaps more common, on my desire to attain my end, then there is nothing to direct the actual process of reaching that end except for an associated unconscious habitual program, that is, a robot. Thus typically the act is not only under the general direction of habit, but of a habit which Dewey characterized as fixed and isolated. And as mentioned earlier, the more importance we attribute to our particular end, the more we will rely on the particular unconsciously held opinion about how to carry it out. Thus making greater effort merely means doing the same thing harder, and if this occurs under conditions of less than optimal coordination, the very effort to perform the act “rightly” amplifies the distortions, making matters worse. Contrasting with endgaining is Alexander’s emphasis on attention to the “means-whereby” which for him must include, in fact must begin with, attention to the quality of my functioning as a whole psycho-physical system in the act of attaining my end.

VI.5 Faulty Sensory Appreciation

Almost all civilized human creatures have developed a condition in which the sensory appreciation (feeling) is more or less imperfect and deceptive, and it naturally follows that it cannot be relied upon in re-education, readjustment and co-ordination, or in our attempts to put right something we know to be wrong with our psycho-physical selves. (Alexander, 1923, p. 150)
In the practice of the Alexander Technique, the concept of "faulty sensory appreciation" has always struck me as representing a rather pessimistic view. The problem with sensory appreciation is not that there is anything faulty about our sensory apparatus, or even our use of it. Our senses are not in general so much faulty as they are adaptive. The fault lies in our tendency to take relative sensory data in absolute ways, which is not itself a perceptual difficulty. It is a conclusion that I am drawing from my sensory experience. Indeed to say that I "feel" right or I "feel" wrong doesn’t make sense. Strictly speaking, I cannot *feel* right. “Right” is a conclusion I draw from the set of sensory data which I feel; it is not itself a feeling. I can feel a certain pattern of muscular tensions, but whether that is right or wrong is not in the feeling. It is an interpretation, and the interpretation goes wrong when I treat it as, for example, not, “I feel forward of where I normally am,” but, “I feel forward of vertical.” That is drawing an absolute conclusion from relative information. Thus “feels right” is an improper translation of “feels normal” and to act on it is to employ a faulty appreciation of one’s sensory data.

My own interpretation of faulty sensory appreciation is that it is basically a matter of faulty conductive logic. As an example of such, the person whose habitual way of standing involves tightening her lower back and pulling her upper torso back will interpret this backward inclination as standing upright. When, with some guidance, she comes to a stance which is “objectively” upright (that is, which can be observed to be so by everyone in the room, including herself if she is provided a video image or such) she will likely have the feeling that she is now off balance forward. In reaction to this construed forwardness, she pulls herself back. But since she is not actually forward, when she pulls back she must tighten in front to prevent herself from going off balance backward. She continues to feel the tightening in the front which seems to confirm her opinion that she is leaning forward. All this muscular effort is quite “logical” as far as it goes. She is engaging in a bit of faulty conductive reasoning in which the muscular conclusions she draws from her kinesthetic premises do not follow. Indeed, I have often observed an alternative invalid conclusion in which the person comes to a vertical stance, looks momentarily disoriented and then leans noticeably forward just before reporting, “Oh, I feel forward.” They have produced muscular effort that seems retroactively to “justify” their perception.

Sensory Appreciation is unreliable as a guide to how I organize my actions because I never know whether what it seems to be telling me is what is actually happening or not. In other words, I cannot assume that if something “feels right” then it actually is right. If the problem with sensory appreciation were simply one of inac-
accuracy, then the obvious solution would be to modify it so that now I can rely on it.\(^{43}\) The problem is both simpler and more subtle than that, however, and so the more useful solution is to learn a way of organizing my actions that doesn’t depend on whether my interpretation is correct or not so that I can use the information as far it will go without blindly assuming that it’s correct, nor on the other hand blindly assuming that it is not correct. That trap, to say in effect, “I have learned that my senses are unreliable so I ought to ignore them,” throws me all the more strongly into my unconscious habitual guidance. If instead I can learn how to take account of the fact that I don’t know whether my senses have adapted or not, I find not only a freedom from the pitfalls of sensory illusion, but the possibility of finding ways of transcending the obviousness of my own history.

VI.6 Inhibition and Conscious Direction: Prevention on a General Basis

...the primary requirement in dealing with all specific symptoms is to prevent the misdirection which leads to wrong use and functioning, and to establish in its place a new and satisfactory direction as a means of bringing about an improvement in use and functioning throughout the organism.” (Alexander, 1932, p. 45) [The application of this principle requires] “...consciously inhibiting interference with the employment of the primary control.” (Alexander, 1941, p. 66)

As an illustration to distinguish the idea of direction from the common notion of control, consider the task of the orchestra conductor or the theatre director. What a good director does is give “directions” to the actors in such a way as to leave them individually free to bring their own creative work to their parts and yet also in such a way that these multiple individual acts of creation all blend together into a single coherent production with a clear interpretation of the script behind it. The conductor must perform a similar task in blending the individual creative work of the musicians into an orchestral interpretation of the score. Neither the director nor the conductor can play all the parts themselves, and if they direct their artists as if they were surrogates in such a process the result is inevitably poor art. Yet if they fail to communi-

\(^{43}\)Early on, Alexander believed that “surely if it is possible for feeling to become untrustworthy as a means of direction, it should be possible to make it trustworthy again.” (Alexander, 1932, p.21) Unfortunately, although this was characteristic of a very early stage in the evolution of his technique, many teachers and their students still believe this sensory retraining to be its primary goal.
cate a clear intention to the actors or musicians the latter will have great difficulty being simultaneously creative and coordinated with each other.

Alexander sometimes described his work as being about “prevention on a general basis,” that is, rather than either doing something specific to “cure” some difficulty, or even doing something to specifically prevent it, one can endeavour to bring about new general conditions which are less conducive to the difficulty. This is the sort of approach we take when we combat weeds in our garden by taking the trouble to amend the soil rather than continuing to do battle with the weeds in any direct way. It is all too easy to overlook the fact that we are not free to engage in this endeavour while we are still carrying out our commitment to our old familiar strategy. Perception of new options is always relative to what we would have been doing otherwise, and having a habit means that there is always a default. That default is usually subject to the blindness of familiarity. Thus to even consider not doing things in our usual way in order to leave our ourselves free to discover as yet unknown new ways feels like giving up any action whatever. This is why inhibition in Alexander’s sense seems so elusive. It is not that the new way is difficult; it is merely unknown. The problem is that we have become so “skilled” in carrying out our habitual conception that it requires no attention, no consciousness whatever, and thus we expect that anything else would be difficult in contrast.

Inhibition is usually thought of as a negative term, as a refusal to do or allow something. Rather than a refusal, it is an insistence on the continuing openness of unknown alternate responses, an insistence on that small dramatic space within which a true spontaneous response can be found. The words “react” and “respond” are quite often used interchangeably, but if we are more careful we find that “React” carries a Newtonian connotation, as in act and react. To “respond,” however, is according to the second or third listing in several dictionaries, “to act as if in answer to.” It is to act conversationally. Thus inhibition is a refusal to immediately give an obvious reaction. It is thus a prerequisite not only to spontaneity, but to all conversation.

VI.7 Indirect Action: The Means-Whereby Principle

[There is a]...psycho-physical activity, associated with constructive conscious guidance and control and with the consequent satisfactory use of the mechanisms, which establishes the conditions essential to the increasing development of potentialities. [To act according to this principle]...involves a reasoning consideration of the causes of the conditions present, and an indirect instead of a direct
procedure on the part of the person endeavouring to gain the desired "end." (Alexander, 1923, p. 10)

One defining feature of a coordinated movement is that anything that is identifiable as a "part" of the moving system is doing what it does according to its own local conditions. These local conditions are being determined by what all the other parts are doing, and so there is no separate need for the parts to "communicate." They are already connected in such away that the whole provides the context for the part. (In physics such phenomena are referred to as "cooperative.") Thus if any given part just does what it does under its own conditions, the action of the whole will already be organized. It does not require control, either external or internal, to make it so. As a consequence, much of the monitoring and control activity which we learn to engage in is, in fact, superfluous and, indeed, often interferes with optimal natural interplay of our parts. The way out of this difficulty lies in the recognition that among the implicit network of relationships between functioning and conditions, some relationships are more general than others. As a simple example, an action such as throwing a ball can be viewed as a process composed of a sequence of smaller actions. Something that occurs toward the beginning of the sequence is going to have a greater effect on the conditions under which the parts are working than something that occurs later. A change in the quality of my overall balance as I bring my arm forward will have a greater effect than will a shift in the motion of my wrist relative to my forearm, simply because the later takes place within a context given by the former. If I can make a choice count, if I happen to know what events happen when, and if I can make a choice about the quality with which these events happen, then I will have a much greater effect on the overall quality of the process if I make that choice earlier rather than later. If I do make that choice about the quality of early events, then I may be freed of the need to have a distinct perception of or make a separate choice about the subsequent details. The course of a river is much more easily influenced near its source than farther downstream. Or as we commonly say it, "an ounce of prevention...." The details of the continuing action are implied by the conditions I have brought about. It is in this way that the control of natural movement can be said to be indirect. Indeed, it is possible to learn to be more intelligently directive and at the same time more "natural" in my actions by directing my efforts not at my intended goal or end, but rather to the bringing about of those conditions which are that end's natural antecedents. This is the essence of an indirect method. In Alexander's context those natural antecedents have always to do with the conditions of the sustaining of my own psycho-physical coordination. Thus making that choice of quality that sustains
my optimal condition of general coordination is the first means toward any particular end. To reverse that priority and make my end primary in my attention so as to neglect those conditions is the essence of the "end-gaining" discussed earlier. In contrast, if I can learn to recognize the early stages of an action, or even its prerequisites, and so become able to prevent my habitual way of carrying out that action, I leave myself free to make choices about the quality of the action as a whole.44

Again Alexander's contribution was not merely to recognize the psychophysical continuity of this coordinated whole functioning and to point toward the possibility of a way of thinking and acting in a self-directed way (what he called the plane of "constructive conscious control"), but beyond that to develop a practical method for exploring and becoming more skilled in acting in concert with the factors involved in that continuity. Kelly similarly not only emphasized, but also developed a methodology for making explicit its dimensionality.

Indirect action is related to the idea of "non-doing," an idea which is often confused, on one hand with not doing, and on the other hand with inaction. As any action, any object, has meaning only against a background of alternatives, non-doing has meaning in any specific instance within a context of habitual construction. In other words, an object is this sort of thing rather than that sort. I am doing this rather than doing that, performing this action rather than some other. Because "what I am doing" is already an abstraction, in this sense "doing" something is carrying out a concept. "Not doing" is refraining from carrying out that same concept. The action, as conceived, is given up, but the construction, the concept, remains intact. In an habitual context it is often impossible in practice to distinguish between such not doing and "doing the opposite," which is the carrying out of a (possibly) new concept

44There was a research project which I heard about in the mid 1970's in which an attempt was made to use a sort of biofeedback to teach monkeys to control epileptic seizures. I never learned whether or not the details of the story were true, but it is the kind of story that is so illustrative that one feels if it didn't actually happen, it should have. As the story went, a group of Rhesus monkeys were surgically made epileptic and then put in front of oscilloscopes on which they were shown their own EEG traces. The idea was to find out if the monkeys could learn to recognize the characteristic changes in their EEG's during the onset of a seizure and thus learn to control it. What actually happened was that the monkeys learned to recognize subtle changes, previously unknown to the researchers, which occurred some time before the onset of seizure and so they stopped having seizures. To be able to learn to engage in that sort of strategy intentionally (that is, learning to recognize the "hidden" precursors) is an important aspect of the present methodology.
defined by the same construction. One of the unfortunate ironies of this lack of distinction is that we continue the original “doing” and merely add “doing the opposite” to it, and “thus we increase the disease in the means used to cure it.” (Dewey, 1958, p. 296) “Non-doing” is also refraining from carrying out a concept, but in a way that is open to reconstruction—what is given up is the concept; there may well be action, but it is action outside the confines of the prior conception.

Thus in a case of “non-doing,” what I am significantly not doing is what I would have been doing ordinarily. That is, non-doing is not inaction; it is rather a refraining from engaging in habitual action. Habit, whether in the sense of the general background of predisposition to act under present conditions or in the sense of specific habitual reactions to a given stimulus, provides the context for meaningful non-doing, for the meaning of what one is not doing lies in the relation to what one would have been doing otherwise. In particular, if the habitual action has any quality of direction to it, then so will the non-doing, and strange as it may be to think about, it often happens in practice that a person who does manage to refrain from such a directional habitual act actually perceives the directional quality of their non-doing. It is not surprising that they often find this quite a disconcerting experience. This experience is a projective cousin of the kinesthetic afterimage discussed elsewhere. What is disconcerting is the perception of the absence of what one is not aware of having expected to feel.

VI.8 How We Got This Way (Comments on the evolutionary account)

At an earlier stage in human development, according to Alexander’s account, the conditions of daily life tended to be constant from generation to generation. Thus the habitual, unconsciously directed “use of the self” of any individual tended to be in tune with that individual’s environment. A child who unconsciously acquired the habits of their community would grow to an adult with the same unconscious but well suited habits as the previous generation. There was never any biological need for any other than unconscious direction. Furthermore, most of the day to day actions of an individual were closely related to matters of life and death, which tended to insure that the common habitual mode was suited to the relatively unchanging conditions as maladapted habitual patterns tended not to be passed on. There was a continuing close relationship between these unconscious general patterns of organization and the needs of daily life. However as time went on the actions of human individuals, exercising their intelligence in relation to their environment, began to change those external conditions more and more rapidly (even to
today's exponential situation). At first the rate of the change was very gradual, however, as it is also in the daily life of any given individual, and so the same unconscious direction of use continued. There gradually came to be, however, a misalignment between the individual and their environment, and thus also between the individual's perception of self-in-movement in relation to the environment and the facts of the situation. Alexander seems to have derived much of this evolutionary view from his reading of Herbert Spencer, and like Spencer's view it is reasonable and illustrative so long as one does not try to push it too far. It is of particular significance in its lack of a separation between cultural evolution and individual learning. This is clearly illustrated in Man's Supreme Inheritance in Alexander's definitions of instinct and intuition as the products of accumulated unconsciously and consciously directed experience respectively. It is a definition of instinct that transcends the question of nature vs. nurture. From the individual's point of view there is no practical distinction between patterns genetically inherited and those learned before the individual could tell the difference. In some regards this is true for the individual's offspring as well. What my child learns from me at an early enough age might as well have been genetic. What Alexander considered the great evolutionary significance of his work was that this is not the end of the story, because it is possible to direct the same kind of reasoned attention to ourselves that we have brought to bear on the outside world. We can set about having experiences which are consciously directed, and thus may come to be, in his use of the terms, less instinctive and more intuitive.45

This whole matter of sensory reliability and its evolutionary roots is illustrated by a piece of research done by Laurie Thomas some years ago. Blindfolded subjects were handed small metal rods, one by one, and were asked to sort them into five categories according to length, judging the length of each only by holding it between thumb and forefinger. The subjects soon became quite adept at discriminating among rods of differing lengths. As the sorting process went on, however, and unknown to the subjects, the experimenter began to hand the subject rods of gradually increasing length. If the increases were small and gradual enough, the subject would continue making accurate relative judgments of length without ever noticing that the absolute lengths of the rods were becoming greater—even to the point where

45Note that Alexander's instinct vs. intuition construct cuts across the usual rational vs. irrational construct. Rather than being in some way counter to reason, intuition is intimately bound up with it in that reason is a essential component of the prior conscious direction that makes intuition possible.
those being judged shortest were the same length as the longest had been at the beginning. All this without any awareness of what was happening, until, that is, the rods became long enough that a slight stretch of the skin lying between the thumb and finger was great enough to be separately observed. At that point the subject was able to recalibrate their perceptions to the new scale. Generalizing this result to the question of a person’s habitual perception of self in the environment, it might be concluded that, because perception is always perception of significant difference, if the conditions in which they find themselves change slowly enough they will never notice. There is never enough relative difference. They will continue making effective relative judgments without ever becoming aware that the absolute relationships have changed. More than this, if the person is operating habitually and they implicitly assume that those absolute relationships are unchanged—and if they then act on that assumption—they are bound to be led into error. They will suffer unnoticed distortions in their “sensory appreciation.” This is precisely what Alexander claimed we all do suffer, as a species and as individuals. It is important to make clear that the defect is not one of sensation but one of appreciation. It is a failure to recognize the relative rather than absolute nature of perception and thus, even when the distortion is kinesthetic it would be more nearly correct to say that it is faulty thinking rather than faulty feeling.

VI.9 Which Alexander Technique?

There are a number of practical questions regarding the implementation of these principles. Dewey’s assessment of the value of Alexander’s work was as a method for generating a new sort of personal experience and it is significant that these principles were derived and born out through years of Alexander’s own practical experience and experimentation. The question is whether what Dewey was referring to, indeed whether what constitutes “The Alexander Technique,” was what Alexander did on his own as described in “The Evolution of a Technique” or whether it was his use of his hands in his teaching work. A key fact relating to this central question is that Alexander, having no teacher but himself, had to find ways of generating new experiences for himself. The question that arises relative to Alexander’s pupils is whether what he did with his hands was the method of generating new experiences for the pupil or whether the pupil generated their own new experiences by the same means as Alexander had, though facilitated by Alexander’s use of his hands. Of course, the pupils had a kind of experience that Alexander never had, the experience of being assisted by expert guidance. This guidance has been often (and I believe mistakenly) described as “giving the pupil an
experience.” It is often assumed that because the pupil begins in a state of unreliable sensory appreciation there is practically no hope of escape from their habitual mode without that external expert guidance, and Alexander himself wrote of the need for the teacher to take responsibility for the pupil’s movement in order to free the pupil from the inevitable effects of their attempts to “get it right.” This is in spite of the fact that it was precisely such an escape that Alexander himself made. Nor was he alone in this. After some years, Alexander’s brother, A.R., joined him in his teaching practice. According to various accounts A.R.’s “training” consisted of somewhere between two and six “lessons,” and according to their niece, Marjory Barlow, it was A.R.’s “proud boast that F.M. never touched him.” Unless we assume that there was a special gene in the Alexander family, it is clearly possible to learn to make these kinds of changes in self-use without the mediation of a teacher’s hands. That it can be very difficult seems undeniable, though to be more precise, the problem is not that the new is difficult but that we are so inescapably skillful at the old and familiar. It is for this reason that teacher’s skilled use of their hands appears essential to the process.

The pupil in a “typical” lesson may be lying down, sitting in a chair or standing; they may be engaged simply in learning to stop unnecessary “doings” that they bring to even these simple activities. They may perform more complex tasks, moving a leg, or standing up or taking a step, or perhaps even more complex tasks like speaking or singing or playing the clarinet. Many teachers see the matter of inhibiting habitual response as so central—and so difficult—that it is the focus of the whole lesson. In this classical arrangement the pupil’s task is to do nothing, to only “give their directions” (that is, to specify the commands for the “means-whereby” for the new manner of use) without attempting to carry them out. Other teachers may take the integration of this inhibition/direction process into the pupil’s chosen activity (for example, learning to sing while consciously refusing consent to one’s habitual way of singing) as the central focus. These two sorts of lessons can look and sound very different, but the approaches are not contradictory. In either case an important part of the teacher’s task is to manually guide the movements involved in such a way that the pupil can have an experience of acting outside of their habitual conception of what they are doing. The question remains, however, What does an Alexander Technique teacher teach? Do they teach pupils to use the same technique

46One of Marjorie Barstow’s colleagues in Alexander’s formal teacher training program in the 1930’s and still actively teaching in 1996—reported at the Third International Congress of Teachers of the Alexander Technique in Engelberg, Switzerland, 1991.
Alexander used himself, or do they use Alexander’s teaching technique to get something else across?

Dewey claimed that of necessity people come to Alexander’s work for the “wrong reasons,” that is, seeking the solution to some specific problem, and that it is only as we have experience with the process can we appreciate that how we achieve our solution and the context within which we achieve it is far more significant than the particular solution itself. By this very argument, of course, the vast majority of lessons in the technique involve pupils who would disagree with Dewey. In theory most teachers would agree with him, but in practice the meaning of the principles for any given teacher, and even more the means they employ in the endeavour to put them into practice, are greatly affected by those initial problems. Nor is this a criticism of such teachers; they are in practice to benefit their students, and the approach any given teacher uses is a product of their own understanding of the principles, their own training experience and their underlying model of learning. The divergence of various schools and styles of teaching has more to do with these divergent lines of practical experience and learning models than anything to do with the principles of the Technique as such. Thus the question “Which Alexander Technique?” is historical, and political within the community of teachers, but only reveals the absence of an adequate definition of what constitutes the foundation of the Technique. The Alexander Technique does not constitute a coherent theory, but is rather a body of practice grounded in the principles which Alexander derived in practice. What is common to all of its practitioners is their adherence to the principles discussed above, the fundamental premise being as Alexander put it,

that by means of a conscious employment of the primary control of use we can with confidence ensure the best possible use of ourselves at all times and in all circumstances, and that by this indirect means our psycho-physical self can be energized and controlled to the best advantage, no matter what our activities may be. (Alexander 1941, p. 215)

Whatever form a lesson may take, whatever problem or potential improvement the pupil may bring to it, and whatever the teacher or pupil may take “teaching” to be, what it is about, that is, what an Alexander Technique teacher teaches, is a means of acquiring this “conscious employment of the primary control.”

There is, however, a context in which the earlier question of whether it was what Alexander did with himself or what he did with his hands that is The Alexander Technique is still relevant. While the scientific and philosophical importance that Dewey attributed to the work is, I think, clearly consistent with the former, the Alexander Technique community has always seemed, in practice, to tend towards the
latter view. Kelly said of psychology that he was not so interested in what it is—to which I would add an implied, and how do we do it well—but rather in what it might become. If we consider Alexander’s Technique from the same perspective, Dewey’s comments become an invitation to take the same view of it that Kelly took of psychology. Alexander’s followers seem collectively to have taken the other view, which may account for the fact that aside from historical articles and the physiological research noted earlier there is almost no literature whatever concerning the underlying nature of the work, why it works as it does, etc. And though they are as pleased with his endorsement as was their originator, they seem collectively to be as uninterested in taking up Dewey’s invitation to a wider exploration as were Dewey’s own colleagues and students. This is not really surprising, considering that each teacher’s experience—and this was as true for Alexander himself as for any other teacher—is affected by the perceived needs of those who come to them as pupils. Dewey’s colleagues never understood the nature of his interest in and support of Alexander’s work, and neither have those who have continued that work. It is not a criticism of anyone who practices the technique to say that it has evolved as a means for self-improvement rather than the method for self-inquiry that Dewey saw in it. But that has often seemed to me to be a great opportunity missed, and it is the point at which my own work diverges from the Alexander Technique as such. Regarding the illustrative sessions in the appendices, one might ask, “Are these Alexander Technique lessons or not?” On the single criterion given above they certainly are, although they differ from most lessons in their explicit treatment of the student as a self-organized learner. They also differ in that their primary intent is not that enhanced “conscious employment of the primary control” as such, nor even any specific self-improvement (though such purposes are certainly present) but rather the employment of the principles of the Alexander Technique to open the possibility of a non-habitual response at the micro-level, in turn making possible the contrasts in experience that allow elaboration of dimensions of learner’s embodiment of their personal meaning.
VII: Teaching Practice: Reflections and Implications

VII.1 Socratic Method and Beyond

The most significant source of my current understanding of all these matters remains my own teaching practice and the insights gained in collaboration with my students. It is in the context of my teaching work that I have encountered all of my questions about meaning and how it is embodied as well as constructed—where, in the words of one of my students, I continually, “meet consciousness on its own ground.” Sometimes the issue at hand is evidently “physical” either dealing with some chronic pain or tension or some notion of “posture” etc. At other times it is “mental” having to do with learning, memorizing, expressing, being self-composed in difficult situations, etc. Sometimes the “problem” is an habitual muscular pattern; sometimes it is a fixed or limiting idea; occasionally it is perceived as an emotional fixity. But in every instance the domain, the “field of inquiry” is the investigation, by an individual, of their own self as a unity in action. The central question then becomes, What is the nature of that field of inquiry? And further, how does a person learn to engage in that inquiry in a self-organized, and embodied way? And what is my role in assisting this process?

Over the years, as I have continued to teach, my teaching experience has taken on a more and more explicitly conversational quality, and the collaborative quality of my own personal action research. I have found the experience I share with these individuals to be a realm that embraces—and confronts us with—my broadest range of personal questions, be they phenomenological, biophysical, aesthetic or whatever. The work, in practice, has become a conversational synthesis of the insights I have drawn from Kelly and Alexander, and the “conductive conversations” are rapidly evolving into a way of working explicitly and concretely with what I find implicit in their work.47

As I reflect on my teaching experience it seems that my own fundamental view of my role as teacher is not the providing of knowledge, but the asking of ques-

47Rather than attempting to fully describe these conversations, I have included a taped sampling in the second “volume.” Refer also to the “Conversational Introduction to Conductive Reasoning” which is intended, in part, to aid the reader in engaging in such a multidimensional conversation on their own.
I see myself as engaged in a Socratic conversation with my student. The subtle temptation for any teacher is to fall into a narrow role of teacher-as-provider-of-knowledge to the learner, but to do that is to usurp the learner’s role, in fact, it is an attempt to do their learning for them. Further, it is to take knowledge itself as something already finished. To consistently take the learner to be a self-organized learner is to let the conversation be driven by the needs and changes in the learner’s knowing. From the beginnings of my teaching career, tutoring other students when I was in high school, my teaching has been intuitively conversational, though I did not have an explicit framework for viewing it as such. My task even then was most often to get the student to come to a clearer sense of what they were already doing and how they were already understanding things. I remember from my early school days having a sense that what separated the “good” students, for whom things came easily, from the average and “poor” students, who struggled, was not so much differences in ability as the fact that the good students had found ways of working that were easy—because they were effective—ways which the others were capable of employing if anyone pointed them out. But no one did, and so most students struggled through, having no choice but to make greater effort in using the less effective strategies they happened upon. I felt frustrated even then at the apparent operating principle that each person was expected to discover the “secrets” on their own, and if they didn’t—that was “too bad.” Later as an instructor in college level classes in physics and philosophy, I freely gave away the secrets, letting the students know why I did things as I did and what knowledge I wanted them to demonstrate. I do this today in my psycho-physical teaching work, partly because several of my students intend to become teachers themselves and partly because I intend that each of my students will become at least their own teacher. Of course, giving away the secrets of the fortunate few is not a matter of just telling them, though sometimes that is an important simple part of the conversation; the craft of teaching often lies in guiding students in discovering them. It is the middle road between doing it for them and leaving them to their own devices. In my philosophy courses I developed a style I called “learning in public” in which I would come to class purposely “unprepared” to discuss the content of, for example, one of Plato’s dialogues. Then the class and I would ponder it together. That way what I was offering them was not a presentation of knowledge that I already had but rather a model of how do go about gaining their own. The reward for me was that I not only sometimes came to a different appreciation of the meaning of a dialogue because of their contributions but that I enjoyed

48 I will be using the term “teacher” to refer to the role of one who assists a more or less self-organized learner in their endeavors.
the fascination of how they went about producing those contributions. The Dialogues were excellent candidates for that kind of conversation as their endings were all so fruitfully inconclusive.\textsuperscript{49} We had no difficulty imagining Plato's own students at the Academy asking, on the day he brought one in and read it to them for the first time, "Well, what was the answer? What is courage then (or virtue, or beauty)?" To which, of course, Plato responded with some equivalent of, "What do you think? Let's talk." Whether the matter at hand is algebra or physics, or philosophy, or indeed the psychomechanics of the organization of one's own actions, becoming more capable of asking one's own questions is always of greater value than gaining any particular answer. And such learning is always a collaboration. The teacher in such a conversation is motivated as much by a passionate curiosity about the learner's knowing as by any desire to be of service. I have found this view of the conversation to be quite liberating for me as a teacher as well, because it frees me from, among other things, the need to possess in advance the knowledge that the learner is to acquire. It is quite literally possible for me to teach what I do not know, and indeed to teach someone who is more knowledgeable than I am. Indeed, to do so is to take knowledge as something open and not as something yet complete or fixed. My task as a teacher in this Socratic mode is to ask questions that reveal the learner's knowledge, and its possible implications, to both of us. Actually, though I describe my preferred teaching mode as Socratic, it is at least one step beyond the classical method of Socratic questioning. For it is not only a matter of asking questions to elicit answers that express knowledge that students don't realize they already possess, nor even asking leading questions that reveal to a student the implications of what they know (even at that, the boundary between a true leading question and a statement masquerading as a question can be subtle). I have found over the years that whether I am conversing orally or with my hands I seem to be at my best as a teacher when I am asking questions designed to trigger the asking of the learner's own questions so that both of us may learn something from how they answer those questions. For example, if I am curious about your perception of the neighbourhood in which you live I may ask you to draw a map of that neighbourhood. However, as we both watch the map emerge under your pen, and in response to your own curiosity about just what it is that you find significant in your neighbourhood, you may become aware of things about your own perception or knowledge of your neighbourhood that you had not realized before. This may lead you to wider

\textsuperscript{49}This was, of course, only to be consistent with Plato's idea of what knowledge is, and what it is not, namely, something that can be gained by long reflection by one person and then just given to another by just stating the answer.
questions about your ways of perceiving and acting. And, in fact, it may be precisely in anticipation of this revelation that I may ask you for the map. This intention places our interaction even farther from the common model of teacher as dispenser of knowledge, for neither of us can have a full conception of the question, let alone the answer we seek before we have found it. This is, of course, one of the major problems in Plato’s dialogue between Socrates and Meno. Indeed, in some translations Socrates refers to this paradox of seeking what one does not know as an “old philosophical joke.” The willingness to persist in such a search is a hallmark of the self-organized learner. One day when my daughter was four, she and I and a visitor sat around the kitchen table. She was drawing and colouring geometric shapes as the visitor and I talked. These drawings happened to be very different from her characteristic artistic style of the period and I commented that they looked like the kind of thing people did in art classes when they were learning about art. She replied, “I’m teaching myself art.” The visitor then said, as adults often seem to when trying to encourage children, “I think deep inside you already know it.” The four year old artist stopped to consider this for several seconds, then with looks and pacing clearly designed to ensure that her adult listeners got the point, she said, “On the inside I’m teaching; on the outside I’m learning.” This was at a time when I was teaching an undergraduate course in Greek philosophy, so Socrates, of course, came immediately to mind. Here was the answer to Meno—and the very definition of education. If I take her “on the inside” and “on the outside” to be essentially the roles of teacher and learner, even when the two roles are played by different people, I find myself engaged in a conversation in which I can quite well teach what I do not know, but I cannot teach what I am not willing to learn.

The first challenge of a conversation about life, and thus about learning, is the discovery that we are already in the middle of it. There is no starting line at which a teacher or learner can say, “Here we begin.” We always find ourselves already “in action.” So the beginning of the conversation between teacher and student, and the first task of the teacher, is to call the student’s prior view of things into question. The first step is to undermine their presupposition that everything is as they take it to be. This idea goes back even before Plato, of course, and similar views are explicitly expressed by Alexander, Kelly, Thomas and Harri-Augstein and others. In practice this often means that the teacher must begin the formal conversation by joining the learner in the implicit one that is already ongoing. In effect we must run along side and begin pointing things out and asking questions about the learner’s view of the passing scenery.
Perhaps the definitive discussion of the nature of teaching is found in Plato's *Republic*. In Book VI, in response to a request to say something about what The Good is, Socrates uses an extended metaphor of the Sun in relation to things visible and to the eye that sees them, and The Good in its relation to the knowable and the soul that knows them. His concluding point is that as it is the Sun that makes all visible things not only visible but ultimately possible, so The Good, as the ultimate truth, is the source of both knower and known as well as the relationship between them. This is not enough for his listener, Glaucon, so he then describes what may be the first conceptual diagram in the history of philosophy, representing his model of the relationship between knowledge and the known. Faced with Glaucon's continuing sense of confusion Socrates relates the allegory of the Cave, describing in dramatic form the evolution of an individual's awareness from the world of shadows to the light. Of course, his listener is still not quite sure about it all, so Socrates must explain the allegory point by point. At the end he says that one can no more put knowledge into a person's mind than "one could put sight into blind eyes." The task of one who would teach, he says, is to get the person to turn toward the light (of knowledge), and remain facing the light long enough to get used to it so that they will then be able to see what was before them all the time. This situation would appear to be an apt metaphor for the whole idea of the Learning Conversation. The first task, and the focus of the "process dialogue," is to call the learner's prior view of things into question, in effect to make them sufficiently suspicious of the reality they thought they saw to get them to turn around and look in a different direction. The first consequence of turning toward the light, in Socrates' model is, of course, that one is painfully blinded by it, at which point the task of the teacher--and the focus of the "support dialogue"--is to encourage the learner to persevere with the process long enough for their eyes to become accustomed to the light. As this occurs, and the learner gains access to what was before them all along, they are faced with the task of making a new sense of their new perceptions. This is the focus of the "referent dialogue." Indeed, the word "conversation" itself carries the root meaning of "a turning around." This view of the conversation is not merely metaphorical however, certainly not in my teaching practice. For the "turning around" is not something that happens in the mind (or in Socrates' version, the soul) of the learner. It involves a change of their whole self. The action, and the knowledge that is discovered in it, are as much physical as they are mental. The conversation is not about making learning psycho-physical. It is about recognizing that it already is, and learning to make conscious use of that recognition. To pursue the analogy one step farther, an important thing for me to remember as a teacher is that when I join a person in the shadows in order to coax them into the light I
become accustomed to the dim light myself. When I get them to turn toward the
light not only are they blinded by the light, and less than willing to continue facing it,
but I myself am blinded too. The difference is that I know that it is all right, that I
will get used to it. Also, the more experience of this sort that one has, the closer one
can look to the brightest light, so while the light is always blinding, that continues to
be all right. One of the insights behind the notion of a self-organized learner is this
one-step-beyond-the-Socratic assumption that not only is a learner, any learner,
capable of answering the questions; they are capable of, and can become
increasingly skillful at, asking them for themselves.

VII.2 Reflections on Teaching “By Hand”: Continuous Questions,
Vector Questions and a Language of Quality

The practice of teaching the Alexander Technique typically involves the use
of the teacher’s hands as well as their words to communicate with the student. My
intention when I put my hands on a person during a lesson is not to manipulate them
or to “give them an experience.” To do this would be a specific instance of what I
referred to earlier as attempting to do the learning for the student. My intention is
rather to ask a question. Though the questions are often leading—or even
loaded—they are never merely rhetorical. They are, in my own construction, Socratic
but real questions. In many cases a possible translation of the question might be,
“Here is an available direction and quality for a potential movement; what is your
response?” or “Are you willing to move ‘like this’?” It is an “utterance” in what
Kelly referred to as the invitational mode, a “suppose this, what then?” question.
The precise way in which I place my hand on the other person and the direction and
quality with which I move my hand while in contact with them constitute the
“phrasing” of the question.\textsuperscript{50} What is perhaps most vital in this “conversation with
my hands” is that the questions be both clear and real questions. There is in practice
a great difference between the clear intention implicit in a questioning invitation and
a preconception of where that invitation ought to lead. This quality of intention
without preconception is characteristic of coordinated human action in general and is
essential in particular to anyone who takes on the role of teacher in relation to a self-
organized learner.

Reflecting on my years of “hands on” lessons and on my view of them as
fundamentally conversational, I find that the language in which those conversations

\textsuperscript{50} Cf. the earlier note on Carse’s distinction between touching and moving.
In a verbal conversation the conversants typically take turns. If I ask a question and another person replies, it may happen that something of the intent of the question continues to be present through several cycles of response. Indeed, a question or answer may be repeated or modified from one turn to the next, but each turn has a discrete quality. If the turns overlap, however, if both people speak at once, the result is seldom anything but confusion. In this kind of manual or kinesthetic conversation, however, each question and answer has an extension in time. When I place my hands on a person’s neck or shoulder in a questioning way, the question continues for as long as my hand remains in contact with that interrogative intent. Also, as the other person’s response to my touch is just that—a response—it continues to be an answer to my question. My question may itself be changed in response to the other person, their movement response may also change over time, and thus we are in an actual conversation—but both changes occur continuously. The conversation also takes on a curious character (reminiscent again of aspects of Plato’s cosmology) in which the question remains temporally simultaneous and at the same time logically prior to the answer. This leads to a kinesthetic elaboration of meaning of both the question and the answer, from both my point of view and my student’s. Furthermore, it is not only a conversation about action; it is a conversation in action. The conversation is constructive. If, as Kelly suggested, “one way to think of the construct is as a pathway of movement,” (Kelly, 1963, p.128) then the conversation with my hands, in its interplay between the continuity of question and response and the dimensionality of personal meaning, is about movement of all sorts. A change in my interpretation of events is as much a movement in this broad sense as is a displacement of my limbs. Kelly states that, “the classical threefold division of psychology into cognition, affection and conation has been completely abandoned in the psychology of personal constructs.” (ibid., p.130) The interweaving of the verbal and manual conversations is a way of conversing in a space beyond that division, moment by moment.

There is a second unique characteristic of the “conversation with my hands” hidden in the above discussion. When I place my hands on a student in the context of a lesson, we are, as I have said, engaged in a conversation both verbal and manual. The questions which I ask with my hands are primarily about the direction and quality of movement. The continuous character of the conversation implies that the questions and answers are equally about action and perception, and the continuity of the verbal and manual conversations implies that the motor and kinesthetic aspects are continuous with all of the other dimensions of meaning in the activity in which

51 These features are illustrated in practice in the first session in Appendix 2.
the student is engaged. Further, it is sometimes possible to ask questions about several directions and/or qualities of movement simultaneously with a single directed touch. Thus the concept of “direction” has a fruitful ambiguity in the conversation. The dimensional quality of my questions take on a “vector” quality. If the student has been engaging in a general pattern of tension,52 perhaps bracing and shortening their entire body in order to play a violin, then the idea of “lengthening” becomes the idea of a release into many degrees of freedom rather than a release in a single direction.53 I may place my hand on a person’s shoulder with the question in my mind being about the quality of how that shoulder is moving. I may also put my hand in the same place but with the intention of asking a question about the relationship between that shoulder and the rest of their movement as a whole. I then find myself in possession of an awareness of what is happening with their back and knees and arms, etc. as well as that shoulder, and of a sense of their whole coordination. More to the point, so does the person, and they are thus able to give consent to a much more complex pattern of release. The effect of this release of tension will be observable, both kinesthetically by that person and visually by an outside observer, as changes in various relationships in varying directions. If the person is engaged in activity such as speaking, singing or playing an instrument, the effect of the change will also be audible. There are also moments at which the continuity between the physical dimensions of the quality of a person’s movement and other dimensions of personal meaning become explicit. This happened recently when a student was noticing a particular nexus of tension in her lower back while walking. We decided to find a movement she could make that would provide a context in which she would be able to release that tensing so that she could have some contrast that would allow her to gain more choice in the matter. As she leaned forward and her back began to lengthen, she suddenly stopped, put her hand on her back and told me in a slightly apologetic tone that the tightness in her back meant that, “I have to make a lot of money.” We were suddenly conversing at several levels at once and in a matter of

52Although I use the noun form “tension” I intend it in the sense of a “tensing” as an activity that they are engaged in doing, rather than a “tension” as an object that they have.

53“Lengthening” is a term commonly used by teachers of the Alexander Technique to refer to the effect of releasing undue contraction as distinct from trying to do anything to make something longer. If I have been contracting a muscle and I cease doing so, the muscle returns to its “resting length” and so gets longer. If I try to make some part of my body longer I will in fact contract some extensor muscles rather than ceasing to contract flexors. Thus “to lengthen” is both active and passive; it is active in that it follows from a specific intention and passive in that the intention is to allow something to occur rather than attempting to cause it to occur.
seconds she was walking much more gracefully and easily, and the tight spot in her back was much freer. It seemed curious that such an interpretation should present itself with such specificity, the more so as she reported that several body workers whom she had known associated money worries with lower back problems. Several days later, as I was having a conversation with myself about some tension in my own lower back, I suddenly found the answer in the form of a sentence that had essentially the same meaning in both the financial and mechanical contexts: "I must support myself." Supported vs. not supported is a dimension of personal meaning which informs many aspects of my experience, as is supporting myself (by some effort of my own) vs. being supported (in the natural course of events). The interplay of these dimensions across the other set of dimensions, physical vs. emotional, muscular vs. financial, etc. gives rise to the dimensional quality of my embodiment. Thus it is that, for example, a muscular tension can have a financial meaning. This meaningfulness of the same event in multiple domains may be seen as an example of the metaphorical quality of embodiment.

I had a curious experience of this sort multidimensional conversation myself some years ago in a lesson with Marjorie Barstow. She was working with me as I sang in front of about 70 other workshop participants, singing in front of groups of people being something that I very rarely do. As we worked I became gradually more free, both physically and in terms of the quality of my performance. At one point Ms Barstow put her hands on my left shoulder in a way that suggested that I had the option of allowing it to move out into freer movement. In quite rapid succession I had the following impressions. First I had the clear sense that there was some kind of "emotional issue" tied up with, or in, the tension\(^{54}\) in my shoulder. What that emotional issue was, I didn't know, but there seemed to be reasons why I did not want to know consciously. The second impression was that I had two choices. I could either allow my shoulder to follow her suggestion and get an experience of better quality in my singing, but at the cost of having to deal with whatever the hidden emotional meaning was. Alternatively I could leave it safely sealed away in my shoulder, but at the cost of missing a great opportunity for new experience. The third impression, which followed surprisingly on the heels of the others, was that there was a creative third choice. If I was really in some way "storing" an emotional

\(^{54}\)Here again it would be more precise to say that I was embodying the emotional meaning, in part, by tensing my shoulder in a certain way. The use of "tension" as a something that I could have in my shoulder was a metaphorical aspect of the meaning at the time, and in fact, reconstruing that tension more clearly as something I was doing was what the learning was about.
problem in my shoulder, then it might be possible to temporarily "move" it somewhere else. That this reasoning may have been blatantly metaphorical did not lessen its practicality. I made my choice and my experience of what followed was that I was able to move the emotional issue to a new location, without "looking" at it or being very specific about "where" it was going. I was then free to accept the invitation to allow my shoulder to be freer with the result that the general quality of my breath and the resonance and rhythm of my voice improved markedly in ways observable both by myself and my audience. The clear "lesson" of the experience at the time seemed to be that if I could indeed move an emotional fixity, then I was capable of processing it in such a way that it was never quite necessary to bring it all the way to consciousness. I have since that time worked with a number of individuals in more dramatic versions of the same situation. In each case they faced a dilemma in which they seemed to have a choice between continuing to, what they might call, "hold myself together" or to allow a physical release that would open emotional floodgates. They could hold off anticipated great emotional pain only at the cost of great physical pain. Using my voice and my hands, I carried on a conversation with them about how they were embodying their emotional meaning. The import of the conversation was not to try to map their embodiment, any sort of "this pain here means that" but simply to explore how what they were doing was but one way of embodying that meaning, and conversely that the felt meaning of any particular tension was but one interpretation. In other words, they had a wider range of choices than they were aware of and one way into that range of choices was through conscious attention to the quality of their coordination. It is significant that each of the individuals with whom I had these conversations had already had some experience with, and thus had some skill in altering, the factors involved in that coordination. This allowed me to say in effect, "Here are some conditions in which you can now do what you already knew how to do but didn't think you could." But then this is the case for anyone met in conversation as a (to some extent) self-organized learner. Thus in the manual part of the conversation, as in any other, it is less a question of supplementing the learner's skill with that of the teacher as it is one of sustaining conditions in which the skill the learner has is enough for the work of the moment.

Perhaps the most intriguing aspect that emerges from considering the interaction between my hands and my student as a conversation is the question of the language in which that conversation takes place, for it turns out to be a language that has no nouns. The invitations and responses are given at an immediate level of kin-
esthetic and/or movement constructs. In Dewey’s discussion in the second chapter of Human Nature and Conduct, he finds the very conception of an act to be performed to be grounded in a person’s habits, which are themselves derived from their prior experience. Thus he says,

Now in fact a man who can stand properly does so, and only a man who can, does... Only when a man can already perform an act of standing straight does he know what it is like to have a right posture and only then can he summon the idea required for proper execution... The act must come before the thought, and the habit before an ability to evoke the thought at will. (Dewey 1957, p. 30)

To refer to an act as an object, as a “something to be performed,” as the sort of thing for which a noun is the appropriate part of speech, is to refer to its habitual conception. To carry on a conversation that refers only to the dimensions in which those conceptions take their meaning, but explicitly in the absence of the conceptions themselves, is to converse about stepping into the unknown. If I wish to transcend the obviousness of my habitual conception of, in Dewey’s example, standing properly, it is not a matter of finding a new concept of standing and then putting that concept into practice, for that would put me in the old searching-for-the-unknown dilemma. I cannot have a concept of the new “proper” way of standing until I have already done so. “The act must come before the thought...”

The only way I can discover a means of standing that is superior to my habitual concept of standing is to stand in a way that is unknown to me, a way of which I have no concept. The process of discovery is a conversation about the dimensions of meaning, largely kinesthetic and motor, out of which I construct a new way of standing. We could, of course, substitute any other act for that of standing. The key issue regarding habit—whether habitual conception, habitual perception or habitual action—is that having a concept is both convenient and limiting.

From a stricter linguistic perspective it might be proper to object that it cannot BE a language if it has no nouns. It must be admitted from this stricter perspective, however, that much, and sometimes all, of what happens in a conversation is extra-linguistic. Thus what I find myself engaged in is at the very least a conversation without nouns.

There is of course the additional question of how I can acquire my concept of “proper” in the first place. Alexander, according to some of his students said, “Everyone wants to be right, but no one stops to consider if their idea of right is right.” (Maisel, p. 11)

In practice, this is always a sticky business. There seems to be no immunity to the tendency, every time we name a construct, to already begin treating it as if it were an element, albeit often at a different level of construction. In personal construct theory
perception and action are not independent; the dimensions of perception are conditioned by those of action, etc. In the continuity of experience, such distribution of dimensions of meaning are not orthogonal.

Now, if I am engaged in conversation with a student with the intention of aiding their discovery of ways of acting that are beyond their habitual knowing, then I need to find ways of asking questions and of making invitations about qualities of action which are not only outside what they know, but indeed outside what I know. My questions must be real questions. Teachers, according Paolo Friere, should not ask questions to which they know the answers. Reflecting on my own teaching practice, I have come to the realization that much of what I might do that would give me the feeling that I am being a “good teacher” might in fact interfere with my students’ learning. But beyond that is the rather unnerving realization that not only are the extra efforts that make me feel good unhelpful to my students’ learning, but indeed so are the essential parts of what actually constitutes “good teaching” as I understand it. Indeed it is sometimes the case that it is by my being a poor teacher that my students learn best. I may give my students the best opportunities for learning by being a poor teacher, but of course, it must be the right sort of poor teacher. In this way I often find myself faced with the double conversational nature of the learning conversation. For the learner the conversation is about how they are going about a given task but also how they go about the task of learning. A teacher who is working with a student in a conversational mode faces the same layered task, helping this particular learner to learn this task, and at the same time learning how to teach. To teach conversationally is to be always calling into question my own understanding of what a teacher is. The art is in teaching beyond my present concept of teaching. It is always moving out into the unknown. I have occasionally described my view of my

it is the elements that play the role of nouns. They are the objects in our experience. Constructs are described as “ways of anticipating.” The conversation in which we make explicit these “ways” in the interest of gaining the ability to better anticipate is often a matter of treating something which is not a noun in a noun-like way while being careful not to complete the task of making it into a noun. It is a process fraught with peril, but sometimes one is rewarded by being able to catch oneself in the very act of objectifying. As my students and I have found on many occasions, there can be great leverage in such a discovery.

58The story is told of the composer Paul Hindemith, famous for his rather dissonant twelve-tone music, who while conducting a rehearsal of one of his compositions, rapped his baton to stop the orchestra. “No, no, gentlemen,” he told them, “even though it sounds wrong, it’s still not right.” (quoted in R. Smullyan, p. 34) I have often found myself and my students faced with a kinesthetic version of just this dilemma.
role to students as that of a guide. The safari is theirs and so the choice of where to go is always theirs. The guide’s role is not to direct the journey but to know what questions to ask along the way, to know where the dangers may lie, or the beautiful waterfalls just over the next ridge. Laurie Thomas once responded to my description of my interaction with my students by saying that it was “the opposite of tourism.” One purpose I may have for hiring a guide to help me go farther into the unknown than I might be able to go on my own is precisely to extend the range of how far I can go on my own. And whom should I hire as such a guide? If I want to go somewhere that I have never been, I might find someone who has been there before to act as a guide. If I want to go to a forest or a desert where no one has gone before, I would do well to find someone who has spent a good deal of time in forests or deserts. To push matters one step further, if I wanted to go “where no one has gone before” the best guide would be a person who had made a practice of going places they had never been before, a person who was used to being in the unknown. And if a person should suddenly realize that they are lost in uncharted territory with only their own wits to guide them, there is a simple method for proceeding: 1) look around, explore, 2) figure out a way to get home and, 3) take notes.

Another aspect of the hands-on conversation is that it establishes a frame of reference that provides the learner with information about their own relationship to movement that they don’t initially possess. When moving “on our own” the only external reference we usually have is empty air. If they do nothing else, the hands of another person may provide a more solid reference against which to perceive changes in the patterns of our way of moving. But if my student is gaining useful information in interaction with my hands, several important questions immediately present themselves regarding the wider learning conversation. How can they acquire for themselves the kind of information they are getting with my hands (with, not from my hands). What sort of questions must I ask, verbally and manually, and how must I ask them in order to help the learner learn to ask similar questions of themselves? How do I design and carry out “conversational experiments” in this mode so that they will demonstrate both the principles involved and at the same time aspects of how to go about designing such experiments?59 The common assumption in the Alexander Technique community is that no one can use their hands in this teaching mode until after they have acquired sufficient sensitivity in the “use” of themselves, that one can only convey with one’s hands the level of kinesthetic perceptivity that

59See the “find something you want to change” experiment in the “Conversational Introduction.”
one has acquired.60 However, if one is learning to work in the questioning mode described earlier, then it may well be that even that sensitivity is but another skill that one may learn in a conversational way. It may well be that two individuals working together may come to a level of skill far beyond what either of them began with by providing this active reference frame for each other. The first summer I worked with Ms Barstow there were times at which the workshop broke up into small groups in which we worked together with our hands—most of us having little clue about precisely what we were meant to be doing. Yet I remember clearly the moment when I put my hands on another person who had been studying with her for some time already and he had a good clear experience of increased lightness and freedom, and learned something in the process. Of course it felt good to be of help to one “more advanced” than I was, but more to the point it was a clear early demonstration that the learning was not transference. On coming home after four weeks and being asked by a friend to show her what the workshop had been about, I put my hands on her head in the course of my description, and she had the same characteristic experience of “lightness.” Indeed over the years I have observed that people learning to teach (at least those learning in the experimental style of Ms Barstow and her students) tend to go through three phases. In the first, as they play with using their hands, they “don’t know what they are doing,” and this lack of preconception often leads to surprisingly good “results.” In the second phase, after they have learned a good deal, they think they understand, and so, often things don’t go so smoothly. Eventually they enter a third phase, in which they come to a deeper appreciation that in fact they don’t after all “know” what they are doing, and they are thus free to work effectively with intention but without preconception. We may well find that there are things which it practically impossible to learn working alone, because it is so difficult to generate the necessary contrasting experience in isolation, but this does not imply that we can only learn these things from someone else who “knows” them already. This fact of conversational learning is a common operating assumption of any self-organized learner, and is as much the case for learning to be more kinesthetically acute as it is for any other skill.61

60This presupposes that there is a “correct” conception of what “use” is that can be a basis for having enough of “it.”

61It is an almost universal belief within the Alexander Technique community that one must have a skilled teacher because one cannot learn without this external reference. The prime counter example was of course Alexander himself, though it might be argued that he developed his skill through years of interaction with his pupils. This raises the possibility of a conversational “training course” in which pairs of students learn the kinesthetic skills they require by conversing in this way
VII.4 Implications of hands-on work with animals and infants

I have on occasion had the opportunity to carry on this sort of manual conversation with non-human subjects, namely cats and horses. The cats seemed slightly offended by my impertinence and uninterested in conversing, so I will briefly discuss the horse conversations and what I think they may imply. It may be the case that, because no human vocabulary is needed, this manual conversation about quality of movement can be carried on quite successfully. As I put my hands on the horse, I was in effect asking, "What is happening here? What can I perceive about the global quality of your movement? And, by the way, how will you respond to this suggestion?" At one point in a "conversation" a friend and I were having with a particular horse she was at his head with her hands on his neck and shoulders while I was at his midsection. I moved to his left hind quarter and suggested a direction from his body down into his leg and a freer quality of movement in his stance. His leg eased out under my hands and he turned his head and gave me the most bemused sort of "What in the world are you doing back there?" look. But he seemed to like the effect. The easiness of his standing continued to increase, and when his rider took him back into a trot and a canter afterward his gait was significantly improved. Other similar interactions with animals lead me to conclude that this kind of learning, in this non-verbal, non-conceptual, channel is indeed possible, most likely because that is the way in which the animals are functioning. Perhaps these are the dimensions of meaning in the horse's experience that are similar enough to dimensions of my experience to establish a shared space in which we are able to converse. I have another friend who has worked as a nurse in infant intensive care units. She does a similar sort of work with severely distressed, usually premature, newborns, in effect helping them to unlearn the patterns they have learned from their brief but intense experience with respirators and other life-support equipment. These tension patterns actively interfere with the natural reflex sequences that infants need to go through, but in the system of meaning that the newborns have already acquired they can often carry the meaning "absolutely necessary for survival." The primarily manual conversations in which the nurse helps the infant to discover that they can release that pattern of survival effort and release themselves into their own natural functioning are quite astounding. It shows, however, that just as it is possible to converse with a horse about the organization and quality of its movement, at its own level, it is also

and providing a kinesthetic reference for each other. The development of such a course, however, is a matter for future research.
possible to converse with an infant on its level. I have had a few very much less dramatic interactions of this sort with infants. That these conversations are non-conceptual by no means implies that they are not meaningful. My impression has been that they are carried on at a level which the phenomenologists would call "pre-objective," and may indeed provide evidence for their claim for the primacy of that level of experience. This same kind of transaction can be carried out with older humans as well, but in that case, if there is not also a corresponding conceptual interaction, it becomes a subtle kind of operant conditioning rather than an engaging of a whole person in conversation. The significance of the work with animals and infants lies in the degree to which conversations about meaning carried on at this pre-objective level can be effective. I have found in them direct experience of what I have had to say about the continuity of experience and how within it the dimensionality of the experience itself is prior to any drawing out of particular dimensions.

In its full implementation the conductive conversation is a systematic way of conversing about meaning—meaning as something which is personally constructed, being dimensional and elaborative in character, but which is also embodied in personal action. It is a conversation about distinctions, not only the distinctions which are the dimensions of a person's interpretation of events in their experience, but the distinctions embodied in their transactions with their environment. It is the distinctions within a person's perception of their whole self in action that give rise to the capacity for giving simple consent both to qualities of action and to the following of unknown paths toward their chosen goals. Thus, within a conversation about the dimensions of our embodiment of meaning, we can come to an appreciation, and a conscious employment of the dynamic, conductive quality of personal meaning.

VII.5 The "Evidence" and Report of Findings

As I indicated at the beginning of this section, while the conceptual foundations of my conversational approach to embodiment are largely derived from the ideas of the contributors I have discussed, its evolution as a concrete practice has taken place in practice, working with individual learners in the context of their own purposes. That is, my findings have been drawn from the whole of my teaching experience. My teaching, as a reflective practice, has been throughout, action research, and in a sense both the data and the conclusions drawn from it are difficult to provide because they are embodied in the ongoing practice itself. The "Conversational Introduction to Conductive Reasoning" in Appendix I is intended as an opportunity for the reader to share in that experience first hand, and in keeping
with the conversational intent of this work, I repeat the invitation to do so before
going on to my findings. In order to make these matters more observable, I have also
provided, in the form of the videotaped sessions in Appendix 3a, a representative
sampling of my experience working with individuals. The following is a general
discussion of these sessions in the context of that wider experience, and the findings
I have drawn from it. More detailed written descriptions and timelines for the indi-
vidual sessions themselves are also provided in Appendix 2. In Appendix 2c two of
these sessions are reconsidered with explicit reference to the Learning Conversations
model.

These videotaped sessions are in one way artificial, having been set up in the
hope of explicitly demonstrating aspects of what I have discussed earlier, but each
session takes on its own reality, both in the straightforward sense that the focus is on
some purpose of the learner, and in a more resonant sense that the people I am con-
versing with share my fascination with the process itself. Thus it is action research
not merely in that they address their wants and I get my data, but in our being col-
leagues in the research at several levels. It is significant that these individuals are in
that respect quite representative of those with whom I have worked. Recall what
Dewey said about people coming to Alexander’s work for the “wrong reasons.”
What was true for Alexander’s work seems even more so for mine, and it is often
surprising how early in the conversation people add the satisfying of an intense curi-
osity about how they are achieving the changes to their list of purposes. This ac-
quision of learning how they are learning as another learning goal is, of course, an
essential aspect of a learning conversation. An example of how this plays out over a
longer time frame is given in the audiotape also in Appendix 3b.

A Catalogue of Purposes

At first sight the purposes people have at the beginning of their conversations
with me fall into a small set of convenient categories. As I look back on them, how-
ever, I find instead a continuous spectrum of purpose, and one of the features that
emerges in each case is an evolving recognition of the relation between the initial
purpose and that wider spectrum. Of course, finding new purposes along the way is
an essential characteristic of the learning process, but there seems to be something
more in this relatedness. Perhaps it is simply that whatever the initial task focus of
the conversation, a conversation about the embodiment of personal meaning is al-
ways intimately woven into the “life conversation.”

The most straightforward initial purpose is the relief of pain or chronic ten-
sion. These conversations begin with at least a suspicion on someone’s part that
there is a learned component to the pain, that is, that it is at least in part the product of some aspect of how the person has learned to do something—whether it be dancing, typing, merely sitting, or compensating for an injury. Sometimes the problem is not the pain or tension itself but the fact that it makes it impossible for the person to accomplish something of vital importance—a pianist, or a dancer or a singer may find themselves unable to practice or perform. The novelist in the second session had to quit writing near the completion of his novel due to pain in his neck and forearms. Perhaps the most extreme example of this that I have seen was a young man who had been a singer-guitarist but could no longer manage to speak above a hoarse whisper. Indeed, the more important what he wanted to say, the more impossible speech became. He was able to improve by finding a way of making the ease with which he moved to speak more important than what he had to say. Though for a while the only sort of thing he could say clearly was, “I don’t care if I speak or not,” he was thus able to prove to himself that he could in fact do so.

There are two less severe situations that correspond to the two above. Many people who are not debilitated by their tension nevertheless have a sense of being limited by it. They confront not pain but a feeling of restrictedness or interference. This can range from a direct feeling of awkwardness or difficulty to a less tangible sense that they could be more effective and more “at ease” than they are. As in the more extreme version, sometimes the matter is focused on a specific task which the person wants to accomplish. This most often has to do with some kind of artistic performance, as in the case of the violinist in the third session, but also includes many other activities, such things as participating in business meetings or solving physics problems. While they are capable of performing, perhaps quite well, they are aware that there is something in their effort to do so that interferes with the quality of the results they seek—that they are getting in their own way. This interference is sometimes experienced, in daily life, as a feeling of self-alienation, a separation between one’s intentions and what one actually does, and in a performance setting as an inability to ever quite express one’s artistic intentions precisely. This sense of limitation is, of course, not always negative. There are those who do not feel especially dissatisfied but who simply want to find an ever increasing subtlety in the relationship between their intentions and the quality of their action. Accepting the principle that I often use in my teaching work that, “You don’t have to be bad to get better,” they simply want more of what they like.

Whatever the specific issue is, whether physical, mental, emotional, or to do with performance in some technical sense, from the present “conductive” perspective the underlying learning process comes to be seen as one of bringing greater co-
ordination and intentionality to the embodiment of personal meaning. The learners themselves come to view their process as one of moving from a view of physical, emotional etc. as separate issues to a more unified view of themselves and their ways of acting. To varying degrees they come to view themselves as engaged in a self-science of their own ongoing action.

**Session 1 – Lynne**

The first session is an explicit example of action research in that while it is intended to demonstrate the conversational aspects of working with my hands–in fact, I asked this particular person to have the conversation because I knew her to be rather articulate about her experience of those aspects–Lynne has her own purpose which is the focus of the conversation, a sort of personal research project. She is a massage therapist and a teacher of the Alexander Technique. I have worked with her many times over the past several years, and had several informal conversations with her early in the evolution of the present work. I was not surprised by her choice of a perceptual issue to work with on this occasion. As a massage therapist, as an Alexander Technique teacher, and also as an actor, she has developed an interest in coordination in a wider than usual sense which includes being coordinated with her environment, and in particular in the ways in which her openness to her environment, human and natural, is a product of her own coordinated action. So this session represents for her a specific bit of research within a more general exploration. Thus this session illustrates both the “basic” and “advanced” aspects of the multichannel conversation, the germ and the fruit.

**Session 2 – Truman**

The second session represents in some ways the opposite end of a spectrum of skills. Truman is relatively new to the psycho-physical skills that Lynne exhibits. He is also a person in a typical dilemma. There is something he wants very much to accomplish, but he finds himself blocked by the consequences of the way he has gone about trying to accomplish it. His personal purpose is quite simple, to remove the blockage so that he will be able to complete his task. This was, of course, precisely the situation that Alexander himself faced, and as with that prototypical example, Truman’s difficulty and his way out of it have dimensions well beyond the evident physical ones. Truman had sold a novel and was completing the writing when, about three months from the end he found himself physically incapable of continuing the work due to extreme tension and pain in his arms and elsewhere. His debilitating physical tension had become incorporated into his conception of what it
means not only to engage in the physical act of sitting and typing but of the very act of creating fiction. In two sessions prior to this one he had already learned to recognize ways in which he was causing his own discomfort, and indeed was able to gain considerable relief—as long as he was not trying to work on his novel. His frustration at the beginning of the session is that he seems to be unable to use what he has learned at the very moment when he needs it most. Clearly his physical problem is not “physical” at all.

**Session 3 – Miriam**

The third session is with a musician who simply wants to continue to improve the ease—and quality—of her performance on the violin. Miriam began studying the Alexander Technique several years ago in the context of her violin playing and has since also become a teacher. On the tape it is clear that she demonstrates considerable skill both in psycho-physical self-observation and in making the experiments that lead to the changes she desires. The contrast between her and Truman in their ability to perceive and articulate the similarities and differences involved also reveals dimensions within the conversational process. All of these sessions taken together illustrate the microscopic scale of the cycles of learning involved. As I discussed earlier the dimensions of experience at hand are not subject to recording for future reflection. What we are learning is how to bring a reflective quality to the experience itself, which results in events which often have the appearance of personal learning contracts of a few seconds duration each. I do indeed want to claim that a conversation about the dimensions of one’s embodiment of personal meaning is being carried on at such a foundational level of meaning construction that there is a sort of indeterminacy between the quality and the sequence of events, the dimensionality and the continuity. It is an attempt to bring intentionality to that whole from which any other scheme for cycling meaning back into experience is abstracted.

Because Miriam, like Lynne, is relatively skilled at key aspects of this way of conversing she is free to attend more directly to her goal of becoming more intentional about the place of the technical aspects in the whole act of performing. I have often observed that when a performer puts their technical, artistic intention at the centre of their attention, what they must rely on to direct the actual playing out of that intention is their unconscious habitual control patterns. Thus what an audience perceives is the performer’s intention, filtered through the limitations of those hab-
On the other hand, when a performer learns to work from their own whole, coordinated self, and finds a place for the specific artistic choice, as it were, on the edge of their attention, and at the very end of the act of performing, then what the audience is given is a glimpse of the performer as a whole human person refracted through that artistic choice. Thus, for example, an actor's audience sees a whole person on stage; the wholeness involved is, of course, that of the actor herself, but as that wholeness is refracted through the character choices the actor has made, they will seem to see, not the actor at all, but the character as a whole person.

The specific strategies for engaging this kind of attention varies with the kind of technique involved. Musicians seem to find leverage in the “hire any musician to play it” game” illustrated on the tape. With actors I am more likely to invite them to attend to the specific differences between their way of walking, for example, and that of their character, or the idea, related to the first session, of attending to their own coordination in order to be open to the rhythm and meaning available in the language as written by the playwright. One particular example of this occurred when a woman in her sixties was reciting a poem. It was a sort of lost-love poem in which the beauty of the first three fourths quickly turns to bitterness at the end because the lover has gone. I worked mainly with my hands on this woman’s head and neck, and as she recited while attending primarily to herself rather than the poem her voice became deeper and clearer, and the imagery of the poem became more powerful. Suddenly, just as she approached the line where the tone of the poem turned, she actually tightened and pulled away from my hands, not in the habitual way with which she had previously recited the poem, but ever so slightly in a way that brought a subtle strangled quality to her voice—which seemed perfect for that line. She then moved back out of it into the powerful bitterness of the end. She did none of this consciously in the sense of deciding to do it. Each tiny bit of action—including that of actually interfering with her coordination—was a product of her coordination in interplay with her intention and the language of the poem. While that may seem a good deal to read into such a small event, she and the rest of her audience experienced the moment in much the same way.

Thus the actor who always plays the same character, whatever the role. Of course, if there is a paying audience who likes that character, the actor may have quite a successful career.

Whether or not this is the inverse of Shaw's statement concerning our seeing not “this woman as Ophelia, but Ophelia as this woman.” noted earlier depends on what he meant by “as,” but it is the heart of the matter.
The issues involved in performance are also interwoven with the perceptual dimensions found in the first session. For example, a strategy I have often used with a person who was reading aloud is to ask them to attend to their own coordination in the context of the specific idea that if they are looking at the text the information is visually available to them. As their whole coordination includes not only their mechanical parts but also the parts that process such visual information, if they are not interfering with themselves all that is needed is to consent to that information “coming in” and being used. The simplicity and effectiveness of this strategy has proven itself many times. I also used it in reverse once, with rather dramatic results. An actor wanted to portray a young woman who was blind, and thus wanted to “act blind.” As she became gradually easier and more aware in her general way of moving I suggested that there was visual information about the room around her available through her eyes. If she was capable of giving active consent to making use of that information in the context of her coordinated moving could she consciously withhold such consent? She took on the experiment and proceeded to walk across the room with a kind of mixture of confidence and caution that seems to characterized one who is spatially familiar but visually denied. The impression was so convincing that everyone found it a bit frightening. She reported feeling frightened by her ability to lose contact with her visual space so easily, though of course she had never lost any contact; she simply declined to take advantage of it for a moment, but it was a powerful moment none the less. The other actor present was also affected, as she reported, not so much by the “blindness” itself but as if the realism of it seemed to bring troubling dimensions in her own experience close to the surface. It was a quite dramatic moment.

Miriam’s intention on the tape is less dramatic but more common. She finds herself carrying some habitual patterns of effort over from a previous practice session. This makes her both physically uncomfortable and dissatisfied with her ability to produce in practice the musical qualities she wants in her playing. Getting better results with the same effort, or alternatively getting the same results with less effort, would either one constitute improvement. If it is the effort itself that is limiting the quality of the results, however, it often turns out that a performer gets better results and gets them more easily by finding a way of giving up the effort. It is important to remember that “better” is always open to construction by the person involved. The advantage of attending with some care to the dimensionality of “better” is that the person gains a much more subtly detailed, and wider, range of choice in that construction. That subtlety and range of choice seems to be limited only by the person’s ability to articulate the dimensions of the choice, and to free themselves of their pre-
conception of how it is to be accomplished—which is another way of saying that it is a matter of the level of their coordination.

Session 4 – Penny

The fourth session falls naturally into two parts. The first part is a "conductive conversation" that sprang from an observation that Penny made that she was feeling more of the kind of general ease she was seeking in one part of herself and more of a quality of restriction in another. Penny's general learning goal has been to find more ease and comfort in the face of a rather stressful job. The basic premise we have been working from is that though we typically refer to a situation as "stressful" the stress is not in the situation, but in our response to it, indeed that stress is the response. Penny is representative of quite a number of "non-performers" I have worked with who, confronted with many stimuli on the job, seek to respond in non-stressful ways. She has gained considerable skill at this relative to where she began. She is able to articulate and gain changes that she values, though not always as consistently or as fully as she would like. When the number or intensity of stimuli is great, or if she is simply tired, her skill can be overwhelmed and she finds herself struggling with tension that seems to be pressing on her from outside herself. What she seeks is a way of being characterized by comfort and ease.64

From the point of view of a Learning Conversation this taped session is largely a matter the support dialogue. Though in one sense I am carrying the structure of the conversation by asking questions and proposing experiments, it is, in the context of her longer term learning, a significant demonstration of her ability to consistently make and use the distinctions in her own experience, to perform and reflect upon the experiments, to make changes that are of value in her own terms—all without the assistance of any manual guidance. One measure of a Learning Conversation over time is the extent to which the learner assumes control of the conversation as it proceeds. At a verbal level it appears on the tape that I am maintaining the directorship, but what Penny demonstrates is that her ability to transform the verbal experimental structures into full psycho-physical experiments and then to carry them out is evidence of her taking over the learning process and making it her own. What cannot be seen on the tape is that most of her progress as a “self-organized learner”

64 Looking these words up in a dictionary after a class one day we found that “comfort” literally means “with strength” and “ease” carries the root meaning “being ready to hand.” Thus to feel these is to sense that one’s present strength is enough for one’s situation and that the resources one may require are “ready to hand.”
takes place between our conversations. She only comes to me when she wants help with what she has not quite mastered. Within the “guide” metaphor mentioned earlier65 one purpose a person may have in hiring a guide to accompany them into unknown territory is that they will become gradually more comfortable going alone into that territory. As they do so they will usually only hire the guide again to go with them when they are interested in going farther into new territory. So it is that these conversations remain much the same in some ways while constantly changing in others. What Penny does on this tape is a bit more consciously “conversational” than has been typical in my experience. Finding that she could be aware of both of the qualities in question, and that the awareness was different in different parts of herself, she found that she could explicitly converse within herself as well as with me. The session is an extended exploration of the articulation that can come from such a conversation.

One of the most significant features of the first half of the session is that I remain off stage and do not use my hands at all. In contrast with the other sessions, in which the manual channel of the conversations was quite important, even indispensable, the question arises, what then has the use of hands to do with this learning if she can carry it on so well without them? The second half of the session addresses that question directly. What is perhaps most significant about this second part is that my use of my hands is secondary to her use of my hands. While my manual guidance enhances the learning that Penny accomplished in the first part, it is organized and directed by her perception of that learning.

Common Features

Taken as a set these videotaped sessions illustrate the general shape of the work on which my conclusions are based. Each session is both a series of experiments with its own closure and also a microcosm of a longer conversation. From their point of view I am acting as a sort of experimental design consultant for the furtherance of their personal research. From my perspective of my purpose I am, in a way, recruiting them as “remote experimenters.” I suggest experiments that only they are in a position to perform and ask for their observations, which we then use as a basis for designing new experiments. The individuals involved do find improvement in the terms which they originally bring to them. Each of the people on the tape was already better, in their own terms, than they had been. They continue to seek more refinement or more consistency in their ability to pursue those ends in the

65See page 82.
thrones of whatever situation brought them in the first place. It is also typical, however, that they are, in varying degrees, elaborating those ends themselves, both expanding the contexts within which they seek the qualities they are learning to provide themselves and also seeking wider, more comprehensive ends.

**Ann’s Retrospective**

Also included in the Appendix is an audiotape of a conversation with a woman who had been working with me for about five years at the time. It is a sort of retrospective of that more extended time frame in which she reflects on how her purposes as well as her ways of going about meeting them have expanded over the years. Where the videotaped sessions illustrate various specific aspects of the work in practice, this conversation gives a larger scale view of the process over time, as the learner comes to take more control of the process as well as the content of the work. It shows, from the perspective of the learner looking back over her own learning, how her purposes, and her awareness of the interconnections among them, have evolved and expanded. She continues to see me occasionally when she feels the need for assistance in applying what she knows to particularly difficult or elusive contexts, though sometimes that assistance is little more than providing an audience to help her focus her own process.

**Report of Findings**

I have found in these sessions and others like them that it is both possible and useful to think about embodiment in terms of the dimensionality of meaning. The dimensions of personal meaning are embodied in the continuity of human action, and their interplay gives personal experience a conductive character which may usefully be engaged conversationally. What this work has been about is the evolution of ways of becoming intentional about that process of conductive reasoning. The underlying “model” being played out is one that assumes that experience is meaningful and that we draw meaning from it. The meaningfulness of events is lived; meanings are retrospective. We do then use the dimensions of meaning, however, to shape our anticipation of present and future experience. There are advantages and disadvantages to this reflectivity, as for instance when we treat an experience as primarily “visual” and elaborate its meaning in visual dimensions. Some dimensions become more clear and others more deeply hidden from view.
In a general sense we might say that dimensionality is the “space-like” character of experience; continuity is its “time-like” character. Continuity is the possibility of anything happening; dimensionality is the possibility of its being something in particular. What I am calling conductivity is then the “space-time” of experience. It is its dynamic quality. Bringing that conductive quality into the conversation in an intentional way opens up not only new choices but new kinds of choice.

Second, I find that within the view of action as a conversational, conductive, process the quality of the coordination of the person is the quality of the action. That is, the level of self-organization of the person, their psycho-physical coordination in action, is expressed in the free play of the dimensionality of meaning of whatever kind. Thus a freely coordinated individual, to the extent that they are unimpaired by the rigidity of fixed construction—whether conceptual, emotional, kinesthetic etc.—will be free to find a natural quality in their action. That free play of embodied meaning is observable from the outside as a quality of presence. It often happens that when a person comes into a fuller enjoyment of that quality, witnesses to the event, at a loss to say specifically what is different, will say something like, “They just seem to be more there.” To the practiced eye there also appears an increase in both unity and complexity, an “integratedness” in which they seem to act as a simpler whole to which more of their parts are free to contribute, and at the same time less of a sense of separation between the person and what they are doing. The musician’s muscular effort is audible in the sound of the instrument. The dancer’s concern with getting the steps right is visible in the flow of the movement. The work of filling in the spaces between an actor’s character choices is something an audience can feel. When each of these lets their performance derive from their own coordinated action rather than conceiving it as something separate, we are treated to an expression of humanness that resonates with the depths of our own experience. And what is true in Performance is no less so in Ordinary Life. However abstract our conception of our task, in the moment of action “knowledge in the hands” is the prototype of all knowledge. And whatever the conception of a particular act to be performed or whatever parts of the person are most evidently involved, to identify an event is already to make an abstraction the dimensions of which are embodied in ongoing action, and thus inseparable from the coordination of the whole person.

66 This quality of being “integral” is in fact a significant perceptual dimension in my own interactions with these individuals. It is central to such questions as how I decide when and how to use my hands or what level of complexity of experiment to propose.
Third, I find that it is characteristic of this conductive conversation that it moves us toward greater personal coordination. It is a process for collaborating with nature without imposing a preconception of its meaning. It is not that there is an a priori mapping between meaning and embodiment, anything like a "this is what that movement or that feeling means." Choosing to act in accord with the nature of things does not require a preconception of what that nature is. Indeed freedom from such preconception is a hallmark of coordination. It is simply that when we view the unity of action as dimensional we find a relatedness, a qualitative unity that knits experience together into a whole experience. The conversation is a kind of search for what we have always had; as we discover the ways in which we interfere with our natural coordination, and open them to reconstruction, we find not just new ways of thinking about things, but new ways of acting in relation to them. This is especially vital when the "things" are our own intentions. As we pursue the conversation we find ourselves in increasing contact with a coordination which is beyond the separate domains of "cognition, affection and conation." We find an increasing sense of wholeness in ourselves and our actions, and a paradoxical quality of attention to ourselves that puts us more in touch with the world around us.

Fourth, this improved coordination, together with an ability to more clearly articulate the dimensions of the meaning of one’s purpose leads to observable improvement in the quality of one’s performance in relation to that purpose. That is, the method is practical. I find that individuals in practice become not only more coordinated within their environment, but also more coordinated with it. They are

67There is a useful distinction to be made between prescriptive and descriptive principles. A descriptive principle is a statement about how something will behave, being the kind of a something it is in the conditions in which we find it. Planets move in elliptical orbits around the sun because it is in their nature as massive bodies in a gravitational field to do so. They are not in any sense “required” to; they just do. A prescriptive principle on the other hand is a rule. It is a statement that something “ought to” operate in a certain way or that we consider it “good” if it behaves that way, according to the principle. Behaving honestly, taking risks or doing what “feels right” all imply prescriptive principles. There are descriptive principles underlying my functioning as a natural system. It makes no sense to speak of my violating them because they are descriptive of my very definition as a natural system. To be “unnatural” in that sense would be a contradiction. The prescriptive principles by which I organize my actions however, may or may not be consistent with those descriptive principles. In these terms what I am proposing (as a descriptive principle) is that life will be better if they (that is, the principles by which I direct my actions and the principles which describe my functioning) are consistent with each other, and that we would do well to treat that consistency itself as a prescriptive principle.
able to, as it were, invite the outside factors of their situation into their own coordination, drawing the whole context within which they are pursuing their purpose into a single field of attention that is continuous with their own organized functioning. Whatever the specific dimensions that constitute the meaning of “better” for an individual, whatever their specific end, since the changes are occurring in the context of their personal action as a whole, it often happens that the very activity that began as a problem at hand is transformed into a vehicle for general improvement which opens new horizons, with perhaps new challenges. As we approach these horizons, as we discover new potentials to fall short of, then master, then leave behind, we learn. To learn is to change, but such change can be seen as the elaborative expression of the possibilities implicit in the coordination of what we are at any moment. In the end what a conductive conversation is about is the ongoing relationship between coordination and learning.

Fifth, regarding the question of how these conversations map onto the components of the Learning Conversation model, the process followed is clearly consistent with the MA(R)4S heuristic. The format is similar to that of a series of very brief Personal Learning Contracts with the addition of a “Conditions” step in the process. In the end this focus on conditions is the key to the working question with which I began, “How can we go beyond recognizing that it is the whole person who is engaged in conversation to carrying on the conversation itself in a more fully embodied way?” For this is simply a request for a particular kind of referent dialogue. The project of bringing together Kelly’s and Alexander’s work within the conversational science paradigm adds little to the nature of the Process or the Support dialogues within the Learning Conversation. Nor has it been a matter of treating the ideas derived from the Alexander Technique as content which could be better learned in a conversational way (a potentially fruitful project, but not the one I have been engaged in). Regardless of the content, or the learner’s purpose, a learner requires of a frame of reference constructed of dimensions of meaning in which they can evaluate their performance and their learning, referents not bound by the limits of the construction with which they began. How else can they evaluate their learning in terms which incorporate what they have learned? If beyond that the learner is recognized as an embodied individual, and learning as thus an embodied process, then that reference frame must incorporate the dimensionality of meaning embodied in the continuity of their action. It is in relation to this referent dialogue that the conversations represented here combine the context-independence of the learning

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68See discussion in Appendix 1.
conversation as a methodology with the recognition that human learning is never really independent of the one pervasive context of human embodiment.

Finally, in regard to the method by which the conversation is sustained there are a number of points to be noted. Like any learning conversation there are times when the learner does well to turn the navigating of the process over to someone already skilled in such things. This frees them to attend to the dimensions of their own meaning in ways they would find difficult under other conditions. The role of the teacher is not to substitute nor even to supplement the skills of the learner, but simply to sustain conditions under which the learner’s present skills are enough to continue building with. In a given circumscribed learning domain we may seek an appropriate set of representations of meaning about which to converse. The meaning behind these representations is what I have been referring to as “embodied meaning” and the ultimate difficulty with conversing about any set of representations abstracted from the whole web of meaning is that so many of the dimensions are hidden from the conversation. In a given domain it may be very convenient to do that, but the conversation we have been pursuing is precisely about what gets left out, the price one pays for that convenience. This brings us to the value of the manual channel of the conversation, to the teacher’s use of their hands. The problem in practice with attempting to simply describe how to have such an embodied conversation and expecting a learner to be able to do so is not that there is anything difficult about the process to be carried out or the distinctions to be made. It is that, due to the nature of habitual perception, it is too easy for the learner to engage in a conversation which is not the one they think they are having, to do things which are not the experiments they think they are performing, and then to draw conclusions based on what they mistakenly believed they have done. It is in relation to this problem that the use of hands in the conversation has its utility. It is simply a matter of finding the most appropriate and effective language in which to communicate. Representations of meaning, however elaborate, are not embodied, or rather they are embodied in the medium of the representation, whereas personal meaning is embodied in ongoing personal action. The manual channel of the conversation simply provides the easiest access to the dimensions of meaningful movement, and ways of asking questions that minimizes losses in translation.

69I am still using “teacher” not in the sense of one who gives knowledge, but of one who asks questions in the interest of another’s learning.
CONCLUSION: FIELD NOTES FROM THE HORIZON

The Full Cycle Reconsidered

At the beginning I said that I had found my work to be a pattern braided together out of several strands of study and practice. As I reflect back over the evolution of this work I find that the germ of that pattern was contained in two short articles which I encountered quite early on. These were Kelly’s “The Psychology of the Unknown” and a sort of companion piece by Alan Radley, “Living on the Horizon.” I found in the first of these an articulation of the essential idea of the theory of personal constructs, not just as a psychology, but as a model of a philosophy of science for a science that is continuous with everyday experience. I now see the fundamental “posture” expressed in the psychology of the unknown as a means of choosing the search for meaning over the quest for certainty, and as a fundamentally “conversational” posture. It is only conversational in practice, however, within the “full cycle of experience,” including its embodiment in action. Thus I found in the second article, a call to a construction of personal construct theory itself which emphasizes that knowing is only part of experience, and its “attempt to make room for the broader and deeper conception of the term ‘personal construct’ implied in Kelly’s writings” has been ever in the background of my own efforts. I have said that my intent in this work is not to establish priority, nor is it to give account of the derivation of ideas. It is rather an endeavour to find means for putting the ideas into practice. What I am primarily interested in is a science of myself. Taking the person-as-scientist metaphor full cycle, I am seeking a framework for a science in which I am both subject and object, both investigator and investigated. Such a personal science can only be science by being conversational, and it can only be fully conversational if the conversation is carried on in an embodied way. When Kelly writes of abandoning the “division of psychology into cognition, affection and conation” he is pointing towards a science which is beyond psychology as it is commonly conceived, towards a unified human science. Within the framework of such a sci-

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70 It was Dewey’s belief that “meaning is wider in scope as well as more precious in value than truth, and philosophy is occupied with meaning rather than truth.” (Philosophy and Civilization, p. 4; cited in Kestenbaum p. 2)

71 As Dewey put it, “being and having things in ways other than knowing them, exist, and are preconditions of reflection and knowledge.” (Experience and Nature, 1st ed. p. 18; cited in Kestenbaum p. 2)
ence I see human learning as neither more nor less than the dynamics of personal meaning—with all its embodied character. More than that, such a human science could in turn provide a foundation for a natural science viewed as a study of a world in which we participate rather than one which we merely observe. My purpose in all of this is not speculative, but experimental. I am not seeking to justify such a science, but to develop a method for practicing it. Nevertheless, in drawing to a conclusion I have decided to revisit these two articles that started me down my present road and to reconsider them from the vantage of all the work I have done since I first read them. It is a way of bringing part of my own thinking full circle.

From this vantage I see the intersection of the views expressed in the two papers as the recognition that it is the dimensionality of bodily experience that gives it its anticipatory quality, and further, that it is this anticipation that is the foundation of any science and indeed, of any intelligent action. Kelly begins his paper by pointing out that when we endeavour to make a rational theory to account for the behaviour of another person, or of ourselves, we may forget that the rationality involved is properly an attribute of the theory rather than of the behaviour. This, of course leads us to view everything on which our theory is silent as “irrational,” and is but an example of a general tendency to confuse elements of our experience with those of the theories we use to account for it, indeed, a tendency to forget why we construct theories at all. Plato’s disparaging characterization of physics as no more than “likely stories” is perhaps nearer the mark than we might expect. Whether we are physicists or psychologists or simply persons seeking to be more scientific in our own lives, these “likely stories,” the alternate constructions which we place on events, are our means not merely of representing experience but of transcending it.

As long as we fail to recognize the continuity of science with everyday thinking (especially with “thinking in activity”) two sorts of problems with continue to follow. It is the isolation of physical concepts from experience that makes them hard to grasp, and makes our use of them inflexible. Concepts in “science,” being divorced from personal experience rather than abstracted from it, are very difficult to learn and even if one can learn to treat the science as a game with its own rules, so to speak, one can learn to play the game in a way which is internally successful but which has little effect on the rest of one’s life. The anatomist with poor posture, the physiologist with poor coordination or the physicist who drives too fast on wet pavement may be said to have “knowledge” which they are not “using.” Thus, in Dewey’s wider sense of knowing, they do not “know” so much. The other problem is that because the methods of science are learned as something separate from daily life, they seldom get applied to daily life—we too seldom engage in the kind of systematic, reflective self-observation through which we could learn much from our daily experience. Reincorporating science and daily life will have significant impact on both.
Their usefulness is less in capturing truth from past experience than it is in anticipating dimensions of future experience. What Kelly says of words like "love" and "hostility" is no less true of "energy" or "electron." They "refer to notions we have ourselves erected, not to events so obvious as to be invulnerable to human interpretation." Mere representation or reproduction of events is never quite enough. Radley points out that "there is an element of the future in everything which we do." (Radley, p. 223) There is also an element of the past in everything we know. If we seek certainty in the elaborating of the details of what is already known, then the best we can hope for is more of the same. The obvious becomes ever more so. But a theory that seeks only to simulate events rather than to construe them is no theory at all, and as Kelly says, "every artist knows" that we can and do "do better than that."73 We can participate in our world, involving ourselves in its ongoing life and committing ourselves to action beyond the horizons of what we know. Indeed, it is by finding constructive ways of beginning our search with a recognition of what we do not know that we may transcend the limits of what we do know. The point I have sought to make, and the focus of the method I have sought to develop, is that it is possible to engage in this search for meaning in a way that more fully recognizes its embodied character, and to live beyond the false horizon of a presumed separation of thought from action, mind from body.

73 It is common to view science and art as utterly distinct, indeed, antithetical ways of interacting with the world around us. Upon examination of their products, however, the distinction between them is not so clear after all. The production of every work of art embodies questions such as whether the intention of the artist can be expressed in the chosen medium—in a sense asking questions of Nature about whether a certain kind of wood will hold a certain shape, whether a certain combination of pigments will produce the impression of a chosen quality of light, whether a certain juxtaposition of musical tones will produce a desired emotional effect etc. The finished work is then presented to a community in anticipation of a response. Thus every work of art, both in its creation and in its presentation to a public, is an experiment. In the realm of scientific endeavor, it is no less true that every well designed experiment is a work of art, required to satisfy not only conditions of logical rigor but also conditions of balance, interrelationship, etc. which are fundamentally aesthetic in nature. Theoretical work is no less artistic, the theories judged of highest quality being characterized primarily by attributes of elegance and ability to evoke fruitful response from its "public." I make this point because I wish to draw together two defining statements, the one by Einstein noted earlier about science being "nothing more than a refinement of everyday thinking," and Dewey's claim that, "art is the intensification of experience." If, as Kelly has it, every person is a scientist in the sense that science is a refinement of the dimensional, anticipatory and elaborative qualities of daily experience, then that person is also an artist in the sense that art is the intentional intensification of the productive, expressive and aesthetic qualities of that same daily experience.
What makes this way of thinking and acting with unity seem so difficult is our unfortunate tendency, both in thought and in action, to accept familiar constructs as downright objective observations of what is really there, and to view with great suspicion anything whose subjective origin is recent enough to recognize. The fact that familiar constructs have equally subjective—though possibly more remote—origins usually escapes us. We continue to refer to them as objective observations, as the "givens" in the theorems of daily existence. (Kelly, 1977, p.5)

This is where Kelly's work meets Alexander's most directly. For our fixed habits of action and perception are the embodiments of our familiar constructs. It is just the weaving of "knowing" into the wider fabric of "having" experience, the weaving together of the continuity of experience and the dimensionality of meaning, that gives substance to my title phrase, "dimensions of embodiment." It is not just a matter of constructs as the dimensions of the interpretations we place on our bodily experience, but of the dimensionality and continuity of that bodily experience itself. Alexander's Technique has been described as a method for generating new experiences. But what good is having new experience if one has no means for reflecting on, and thus learning from, that experience? What Kelly provides to Alexander is a means of attending to the dimensionality of meaning, a way of "analyzing" experience while respecting its wholeness. What Alexander provides to Kelly is a practical means of attending to the quality and sequence of the movements that are the embodiment of our concepts in order to render them observable, not as "objective measurements" but as personal data which we can use to engage conversationally with our own process, and thus a means of conversing about the "broader and deeper conception" of constructs within the continuity of experience. Together the two provide a conversational framework for a conductive reflective engagement with one's experience.

Here too is where personal construct theory "veers away from" and is restored to connection with phenomenology. If phenomenological "personal science"

74 Cf. Polya's discussion of Pappus on analysis and synthesis. Analysis is a matter of mind, a reflecting on conditions, a making of a plan. Analysis works from the end, the intention, back to present conditions. "What will be the synthesis? Translating ideas into actions" (Polya, p. 145). Synthesis is the carrying out of the plan, moving from present conditions to the intended end.

75 In practice, not attending to dimensionality can lead to getting stuck with one's old constructions. Not attending to continuity can lead to distortion of the act of reconstructing—and thus of any attempt to act in commitment to a new construction—by malcoordination in one's whole system.
asserts the primacy of personal experience, it does not assert that experience is arbitrary. Physical science asserts that the world is real—the world as a whole, that is—not necessarily that any given object is real. Individual objects are intersections of attributes and so their reality is a matter of personal construction. We are free to construe—and we find that alternate constructions vary in their consequences. The essence of the Dewey’s pragmatism is that meaning is inseparable from consequences. Any useful sense of the meaning of a proposition, let alone its truth, lies in the consequences of our acting in commitment to it. Meaning is constituted, and reconstituted, in the full cycle of experience. Meaning as, in Dewey’s term, a transaction, has an ongoing, conversational quality. The “conversational science” paradigm is then not at odds with either physical science or phenomenology; it is an alternative construction of events, including my construction of events as an event, which is both a physical science and a personal science. It is the implementation of a psychology of the unknown. This is then the point at which all of the tributaries of my work converge. Merleau-Ponty and Dewey have provided a philosophical grounding and Kelly and Alexander, practical means of attending to the dimensionality and continuity of experience. My own point of departure has been the idea explicitly stated by Dewey, though also clearly implicit in the work of the other three, that the continuity of experience, the unity of mind and body, is to be found “in action.” I have endeavoured to bring fully into the fabric of conversation about meaning dimensions that otherwise can only be mentioned from a distance.

Whether one is a scientist or a graduate student or simply a person trying to cope with the “day to day world of obvious meanings” (ibid., p.12) it is commonly supposed that the proper place to begin an inquiry is by laying out what is already known. We then expect to build our way from this foundation to some greater structure of knowledge. This is but the expression of our common preference for certainty over meaning, and our habitual, robotic mode of action is the embodiment of that quest for certainty. Whether conceptually or physically, however, “certainty” lies always in the past, and it is the future that stretches before us beyond “the horizons of our thoughts” (ibid., p.6). There is a clear recent example from natural science. In the study of systems whose behaviour is dynamically complex it proved necessary to abandon prediction precisely because only the whole history of the system contains enough information to say where it will be at any given future moment. Just so with human experience. To attempt to know something for certain is to suppose an unwarranted regularity; it is to treat myself, or human nature, as something complete. To act habitually is similarly to assume that the conditions within which I act are fixed, are indeed the average of all the similar situations I have faced in the past. What then are we to make of error? What do we make of the tricks our senses
play, or of the faulty conclusions we draw from them? Kelly advocates an alternative approach, a way to begin our inquiry with what we do not know, as he calls it, a psychology of the unknown. What we seek is an approximation to the truth of things, not fragments of it. We seek an expression of what we know which is true not "in part" but "in some respects," not a reproduction of past events but an anticipation of the dimensions of the similarity of future events. To begin an inquiry with a statement of our "admissible ignorance" is an act of both humility and audacity. It is to place our confidence, "not in the bedrock of truth itself" (ibid., p. 6) but in the fabric of our conversation. To recognize that "truth comes only through experience" does not imply that we are limited to our experience; we are ever in pursuit of new experience bearing new meanings. This has always been the essence of good science. As I quoted Kelly earlier

Our venture as scientists, then, is...to proceed from propositions which are admittedly faulty, in the hope that we can complete fully the experiential cycles which will enable us to formulate new propositions that are perhaps less faulty. (ibid., p. 11)

By saying what we admit is inarticulately expressed, we commit ourselves to a conversation which may take us to a new vantage from which we can at least see what it was that was faulty about our original view of matters, and if we are fortunate, to a more satisfying expression. There is nothing really new here, except the realization that it applies as much to ourselves and our own actions as to any other domain of our experience. "Scientific" is a quality that may be attributed as fittingly to the action of muscle as to that of mind. Such an endeavour also requires courage, however, for to immerse oneself in the full cycle of experience is to enter perilous waters. For once a person enters these waters,

...he will have to cope with his circumstances inarticulately as well as verbally, primitively as well as intelligently, and he will have to pull himself together physically, socially, biologically, and spiritually (ibid., p. 11).

He finds himself not merely having a chat about the dimensions of meaning, but involved in a conversation the continuity of which spans the whole of his experience. This conversation can be profoundly disturbing to one's equilibrium and, in Dewey's

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76 Indeed, science always begins with a kind of articulate ignorance. Every major innovation in natural science has evolved from an effort to clearly articulate what we do not, or cannot, know. All of thermodynamics, for instance, derives from statistical statements of what cannot be known about the individual behavior of large numbers of particles. It was the abandonment of attempting to predict the complex behavior of "chaotic" systems that opened the way to a whole new science of complexity.
Conclusion: Field Notes from the Horizon

sense, dramatic. If we are not to be merely tossed about by experience, we must not only involve ourselves in it, we must be committed to something. Kelly defines commitment as “self-involvement plus affirmative anticipation.” The person who commits himself to a course of action “becomes a significant event himself, and hence a factor in what happens” (ibid., p. 11). As did involvement, this commitment spans the whole continuity of the person’s experience. It is a matter not just of meaning, but of embodiment, a matter not just of construing, in the sense of placing an interpretation on events from the outside, but of the dimensions of our engagement with them. 77 This is the “broader and deeper conception” that Radley speaks of. He says,

Rather than being a theory about ways of seeing the world, Kelly is indicating that construing is also about a person’s involvement in something, his faith in what is not yet actual and the commitment of himself to his actions. (Radley, p. 222, emphasis in original)

We are cautioned not to be misled by a too narrow use of the person-as-scientist metaphor. The matter of construing and reconstruing does not concern an individual only as a knower but as a “live creature” fully invested in an ongoing world. Sometimes a person knows what goal they are striving for, or knows the question they seek to answer. 78 In such a case we may think of the person’s system of constructs as a

77 If we follow Kelly’s advise to take responsibility for our own constructs we may find that many of the apparently competing fragments of experience actually express subset relations among our constructs. No longer is it rational vs. irrational, mental vs. physical, even predict vs. anticipate, but in each case an attribute abstracted from a larger domain of which it is a dimension. The opposite pole is but another abstracted attribute. It is not that the conception of an act is psychological and the carrying out of the act is physical, but that psychological and physical are attributes of the whole “psycho-physical” act. The practical task is learning to engage with my own actions in a way that opens both their psychological and their physical dimensions to observation and reconstruction, and that is what this work has been primarily about.

78 Sometimes, of course, one clearly defined goal is replaced by another in the course of events. An excellent example of such of flexibility of goals, and the value of reconstruing when conditions change, occurred in the 1993 Baseball All-star game. John Kruk is a batter known for his toughness. Randy Johnson is a six foot ten inch pitcher known for his 98 mile per hour fastball and a tendency toward “wildness.” Before the game Kruk, commenting on these latter two factors, stated that Johnson was the one pitcher whom he did not want to have to face in the game. So, of course, one of the first batters up when Johnson entered the game was Kruk. Johnson’s first pitch was behind Kruk and several feet over his head. It had “slipped” from his hand. The next two pitches were very fast and precisely in the middle of the strike zone. Kruk, with semi-feigned fear, watched the first go by and made a half hearted
theory which they *use to predict* what will happen next. We may thus view the
person’s behaviour as an *experiment* that tests their theory. Sometimes, though, the
person may not be able to articulate what it is that they seek. These are the situations
that Radley finds more revealing. The person’s behaviour then looks to us more like
exploration than experiment. Perhaps in such circumstances natural history would
be a more serviceable metaphor than science. Sometimes we can “say beforehand”
what we seek or expect, and go about answering our questions. At other times we
cannot articulate these things, and we find our efforts have more to do with the
posing of questions. We find ourselves faced with Plato’s “old philosophical joke,”
seeking a prize which is both known and unknown. We are required, like the hunter
in the Russian folktale to, “Go to I do not know where and bring back I do not know
what.” Like the hunter, if we want to succeed we must have a means of organizing
our search despite the elusiveness of the goal, and also like him, we may find un-
expected help along the way. These are the circumstances in which it is clearest that
construing is not just a matter of interpreting, but of “living in anticipation.” What
we cannot articulate, we nevertheless embody.

Activity is lived construing, which is anticipatory, directional
and organized. In that sense the significance of a new question is to
be found in a rationality to be sure, but not in a reason which we can
articulate. (ibid., p.245)

It is this reasoning in action that I have called “conductive reasoning.” The reason
which is the elaborating of the implications of what I can say is abstracted from this
wider logic of how I embody meaning in my participation in my world. Radley
argues that although it might be possible to read Kelly’s original articulation of per-
sonal construct theory as referring to the narrow meaning of “constructs” by which a
person “has” and then “uses” interpretations of experience, his later writing makes
clear that he was referring to something much more. I would make an even stronger
statement that such a narrow, “intellectual” reading of Kelly is inconsistent in the
first place. Whenever we look too intently at a construct it tends to coalesce into a
pair of opposing objects instead of being a dimension of meaning. Just so, to read
construct theory itself as if we could treat knowledge and action as separate things is

swing at the second, clearly wanting nothing to do with them. After he had struck,
out Kruk bowed in comic submission to Johnson. It was a moment of great baseball
mirth. The point of the story is in Kruk’s comments after the game. He said that
when he came up to bat his goal was to get a hit, but after the first pitch, he said, his
goal “was to survive. I thought I had a pretty good at bat.” The meaning of success
is always in relation to one’s purpose, and purposes can change quite suddenly.

79A similar claim can be made about the corresponding narrow reading of
Alexander’s writing.
a product of a dualism that the theory itself will not bear. Indeed, pure intellectualism is self-contradictory. The great overlooked fact is that purely "abstract thinking" is itself an abstraction. As the concept of a frictionless plane is an extrapolation from qualities of flatness and smoothness in our experience of sliding objects, so that of abstract thought is extrapolated from our experience of "abstracting" qualities from the experiences of which they are qualities. In either case, when we lose contact with the process and only the finished abstraction remains, difficulties inevitably follow.

Regarding the problem which Radley takes up as the focus of his discussion, the pursuit of a goal which one cannot clearly specify, we may find ourselves hampered by the strategic limitation of supposing that there are some things which we can say and some we cannot say, that we are either articulate or wholly inarticulate (not a conversational attitude), and that while we can be systematically reflective or experimental about the one we must accept the other as a mysterious realm beyond the horizon of choice. The solution to the problem in practice lies beyond the dualism, in recognizing that anything—anything—that we can articulate becomes a particular through which we can attend towards other things. They are never the whole story, but they are the outline that gives the story its shape and propels it forward in one direction rather than another. When we cannot say "what" destination we seek, we may still be able to say something about "how" it differs from where we are now. We may be paradoxically able to be articulate about what we cannot articulate by attending to the dimensionality of experience. What Polanyi called "tacit knowledge" is that knowledge embodied in our participation, and which we find ourselves unable to abstract from it. Constructs which we can make explicit, predictions we can make, experiments we can perform, are all particulars which, by dwelling in, we attend toward other things. They are the "darkness in the theatre"

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80 There was a verb in Middle English, "to acknow," which meant "to come to know or recognize" or "to admit or show one's knowledge," and the noun, "acknowledge" referred to the explicit knowledge that was so "acknown." (Donaldson 1993, p.23) Knowledge can be implicit in action. We act as if we know, but we cannot say what we know. Acknowledge is only the small portion of knowledge that we can admit to or show. Donaldson argues that neither kind of knowing is limited to the cognitive domain and that if we could learn a way of processing our emotional meaning "abstractly" as we do our cognition it would lead to a "dual enlightenment."

81 Another of Carse's "finite-infinite" constructs is being trained, which is "to be prepared against surprise," and being educated, which is "being prepared for surprise." It is a matter of which side of the horizon one is prepared to live on.
needed to show up the performance. It is in this sense that "a construct is a process or vestibule through which the person exists." (ibid., p.226)

There is another side to all of this, however. Experience is not merely something that we undergo. Because we can anticipate consequences, we can direct our actions towards consequences we intend. Thus we are not only significant events in our own experience, we, and our actions, are instrumental in bringing about the events that we anticipate. Thus committed, we do more that cast our gaze towards the horizon, we choose a path leading we know not where and step into the unknown with our eyes open.

Like any other kind of step, this one can be taken in a way that is either more or less coordinated. "As for the artist, so for the rest of us; to construe the surrounding world is to visualize it in more than one dimension," (Kelly, 1977, p. 4) and the more dimensions, the richer the experience. It is not, however, only a matter of visualizing but also of acting in more than one dimension, and the more dimensions, the more articulate the action. Our habitual patterns of thought, action, perception and feeling are our ways of embodying the obvious, and every act dominated by a routine habitual pattern begins with a presupposed "certainty" and is thus an act bound by past construction. No matter what I am doing, "what I am doing" is already an abstraction drawn from past habitual meanings. How then am I to act in a way that is open to reconstruction? If this psychology of the unknown is not just a matter of what I know of my world but how I live in it, then how am I to carry on the conversation? The task of transcending the obvious is not only a matter of reconstruction in the sense of reinterpreting experience as if from some vantage outside of it. It is a matter of the dynamic of embodiment. If we are to carry on this conversation in the full continuity of mind and body in action, we require what Dewey found in the Alexander Technique, namely "a procedure in actual practice which demonstrates this continuity."

Several of the words that appear frequently in this discussion are used in fruitfully ambiguous ways. Three in particular are worthy of a slight digression to mention. The word "construct" itself carries both the meaning of "an interpretation" and that of "to build." It is within this overlap of meaning that we may think of meaning itself as something which we "make." "Way," as in "the ways in which" we anticipate events, is usually taken to mean something like "the alternate interpretations of events by which we anticipate," but if we take anticipation as "a description of the whole person," (Radley, p. 227) then it also refers to the quality with which the act of anticipating is performed. It is thus a psycho-physical matter rather than just an intellectual one. Finally to "articulate" literally means "to connect
together by joints.” So although we use it as a synonym for “to say,” it would serve as well as a synonym for “to embody.” What we cannot articulate in words, we articulate in the qualities of our actions.

Conductive Reasoning is a way of implementing something like the psychology of the unknown articulated in action as well as in thought. Like Kelly’s student who sought to explore creativity by engaging the creative process full cycle, I have sought to involve myself with questions of embodiment by engaging in conversations about the nature of embodiment. Just as the student’s task is to find ways of studying creativity that are themselves creative, mine has been to develop ways of conversing about embodiment that are themselves embodied. Living the psychology of the unknown is recognizing that the only thing we must give up in our search is “knowing in advance.” When I act in commitment to my preconceptions, including my expectation of how a given mode of action will “feel,” I find that

My spontaneous or natural actions are interrupted by my attempts to “be something” in particular. To the extent that I try to achieve such an image for myself, then I may act self-consciously with reference to this construction of self which I hold. Often this goes alongside conscious attempts not to act in a certain way, and to suppress some particular way of behaving. Again, the effect of this is to isolate some aspect of behavior in our experience and, by objectifying it in this way, to try to operate upon it directly. (ibid., p.240)

This could serve as a statement of the rationale for Alexander’s work, especially if we note that because we “hold” our self-construction as much in the muscular sense as any other, we require an “indirect method” if we are to operate in a way that is unified rather than fragmented. This indirect method is a kind of lived psychology of the unknown, a way of giving up my commitment to my preconceptions by attending to the dimensions of meaning in which movement itself is “anticipatory, directional and organized.” When I can give up that commitment, I find myself able to be even more intentional in my actions and at the same time more natural. Then, to some extent, I can converse about what I cannot articulate, and direct what I cannot control.

Problem of a New Dualism

Radley recognizes the separation of my construction from my behaviour, and of both as possessions separate from myself, as rooted in old-fashioned mind-body dualism. What is needed is a means of transcending the obviousness of that dualism, however; it is of little benefit to argue against dualism and then to continue practic-
The attempt to dismiss the old dualism of mind vs. body as two distinct kinds of entity by describing ideas as “mental” phenomena and the carrying out of ideas as “physical” faces one of two difficulties. Either it merely replaces one dualism with another, or it suffers from a certain lack of symmetry pointed out by Dewey. If one is going to assert that there is no such “thing” as mind as a distinct entity, that to do so is to draw an improper inference from the “mental” dimensions of experience, then to be consistent, one must assert the same about “body.” Arguments such as, for example, that the mental is merely a certain order in the behaviour of the physical, or that mind is simply processes in the brain, are merely modern versions of solving the mind-body problem by claiming that one is real and the other is not. This dualism can be escaped, however, by recognizing that although ideas are mental, the act of carrying them out, that is, the act of embodying them, is psychophysical. Both mental and physical are dimensions, or sets of dimensions, abstracted from whole experience. By way of physical illustration, this is the same sort of distinction we find in the case of the wave-particle complementarity of photons. “Wave” is not an entity distinct from another sort of entity called “particle.” Nor is a photon any sort of combination of two such entities. Nor, however, is there a “wavy” quality of something that is really a particle, or vice versa. What is whole and real is the photon. In practice, physicists seem to hold to a philosophical position which might be called “cavalier realism.” In relation to any particular measurement or experiment they may treat a photon or an electron, etc. as if it absolutely, objectively, really is a particle. The next day, in relation to a different measurement they may grant equal “reality” to the proton-as-wave. This attitude, ironically, is an antidote for the tendency, endemic among non-physicists, to try to view photons as “really, really” one or the other. Recall Aristotle’s insistence that what was real was neither form nor matter but individual substances. Any investigation of how body works—or any intentional use of a body—has itself a mental quality. Any mental activity as such—and not only because it takes place “in” a body—has a bodily quality. What is real, primarily, is whole experience. Mind and body are equally qualities of experience, not entities separate from it. From this perspective consciousness is seen not as an entity which exists, or does not, but as an event. Dewey refers to the continuity within which consciousness is in the mind, or the mind in the brain etc., not “as marbles are in a box but as events are in history, in a moving, growing never finished process.”

82In Aldous Huxley’s novel *Eyeless in Gaza* (in which the character, Miller, is based largely upon Alexander) there is a scene in which Anthony Beavis discusses dualism. Miller tells him at one point, “Of course you are a dualist. You live your dualism.” (Huxley, p. 425) In our habitual mode, so do we all.
Within the dynamics of the life of such a whole person, physically, emotionally, cognitively, etc. are ways of being. Ways of being, for example, fixed or free. I can talk about myself physically or mentally or emotionally, but what I am talking about in every case is my whole Self. This realization is perhaps the core of the psycho-physical approach. Since I am a single whole system whose functioning can be more or less free in a variety of ways, those ways will be related to one another. Thus it is quite possible that becoming more free physically can make a person less stuck emotionally etc. This is a distinction between different kinds of dimensions of meaning. There are many possible interpretations of free or unfree etc. and it is certainly conceivable that I could find myself free in one sense and unfree in another at the same time. What seems to be the case in practice, however, is that for any given dimension, that is, for some particular sense of free vs. unfree, I cannot be free, in that sense, physically and simultaneously unfree, in the corresponding sense, emotionally. Further, I cannot be unfree in that sense mentally and at the same time free at the level of carrying on a political debate. These are, in effect, global parameters of meaning, qualities which may be attributed to myself as a whole and which may be evident in physical, mental or even social ways. This point has consequences reaching far beyond the internal coordination of the individual. There is much discussion at this time of the need for greater appreciation of large scale concepts such as ecosystems, the global community, acting in accord with the natural world, etc. From the general perspective I am endeavouring to articulate here it appears that it is literally impossible for any individual to have such an appreciation of these concepts without some concrete experience of their underlying attributes. The only place in the natural world where the individual can find such concrete experience is in relation to the quality of their own physical existence. I cannot really understand the intricate coordination of the relationships that make up a forest unless I have had an experience of what “coordinated” vs. some other quality might mean for me. Without such experience the term “coordination” (and thus, in that intricate sense, the term “forest”) can have no concrete meaning for me. It will be a mere abstraction. I comprehend the qualities of the world beyond my personal experience in terms of the meaning within my experience (by a sort metaphorical extension from it). The dimensionality of this relationship is not only conceptual; it is also functional. It is equally impossible for me to carry on a discussion in an open and flexible way if I am at the same time holding myself physically rigid or clutching tightly to my preferred ideas. The same quality of freedom, ease, coordination, etc. or their opposites will be embodied in my whole action in all of its aspects. Perhaps

And indeed, myself in relationship with my environment.
as a complement to dimensions of personal meaning, we might usefully define physical, mental, emotional, etc. as dimensions of embodiment. Note that this view is phenomenological in the practical sense that what is referred to as “my body” has its meaning relationally rather than substantially, and is thus not limited to a “subcutaneous” self. The same dimensionality will be evident in the qualities of my action, whether it is the dynamic quality of the contraction of a muscle I use to bend my knee or those of the strategies I and my associates use to further our ends on the national political scene. At all levels the “natural” course is to seek to employ means that exhibit the same qualities as the ends they are intended to produce. Beyond the question of whether “ends justify the means” it is simply not possible to bring about any end which is concrete and whole and which embodies an intended set of meanings if one employs means which are the embodiment of conflicting dimensions of meaning. This is simply because the meanings of means and ends are constructed and embodied with the same dimensionality. \(^8^4\) To attempt to have things otherwise is to live a contradiction. Unfortunately this is just what most of us do attempt as we operate in our habitual “robotic” mode. The only way we can maintain the illusion that we are free to construe ourselves and our tasks arbitrarily with no regard to the continuity of the full cycle of experience, and without consequence, is to hold the dimensions of our embodiment separate—and then hide that effort from ourselves. \(^8^5\) That is why the robotic mode is so inherently self-alienating (and why in practice, I suspect, individuals who step outside of that mode so often face such a strong sense of both vulnerability and power). Recall once more Dewey’s preemptive caution to cognitive science that if we are to consider “mind” as an abstraction from experience, as essentially a nominalization of the mental qualities of our actions, we must apply the same reasoning to the concept of “body.”

\(^8^4\)Here is the essence of the conductivity of experience, that meaning has a dynamic quality that spans all of its dimensions. Just as in the case of simple physical motion we may change the mathematical description of the motion by changing the coordinate system within which we view it, so we may construe events in our experience in many ways, and in both cases the dynamics of the motion survives changes in how we construe location. To say that experience is conductive is simply to say that meaning is dynamic.

\(^8^5\)This is a sort of misplaced Platonism. To treat alternate constructions of ourselves as ideal concepts, alternate ways to “be,” without regard to the dynamics of how we are to “become” so is a personal parallel to Plato’s discussions of ideal political states, without regard for how we are to get there from where we are. In its anticipation that where we might go, and the quality of how we are changing, will both be expressions of the dimensions of where we are, the present view finds Aristotle a much more suitable patron.
Treating either of these sets of dimensions as a distinct entity is equally problematic. The founding principle here is that what is "real" is the whole person in action. Further, as we have seen, to affirm the unity of the individual but yet divide experience into distinct mental and physical domains is the same dualism in another guise. What channelizes our processes are, in the words of Kelly’s postulate, the ways in which we anticipate events. In practice, we escape dualism by embracing the dimensionality of whole experience.

The last phase of the "full cycle of experience" is reconstruing. Kelly wonders whether it might be "better to say that one can never know his immediate experience until he has looked back on it again and again." (Kelly, 1977, p. 9) Here we find ourselves in the midst of the less obvious dimensions of the person-as-scientist metaphor, and here is where the wider view is clearly implicit. For although one may experiment to test one's interpretation of prior events—and this is no less true for personal behaviour construed as experiment—an experiment is of little use to a scientist unless it reveals dimensions of experience that were not explicit in the original purpose. "The cycle of human experience remains incomplete unless it terminates in fresh hopes never before envisioned." (ibid., p. 9) But as Radley says, "The creative aspect of behaviour is in meeting events, not only in reflecting afterwards upon the unforeseen consequences of a considered action." (Radley, p. 234) These two appear in conflict only if we suppose the "separation of mind and body, which allows a person to think (construe), and then act and then think again." (ibid., p. 231) The resolution is in recognizing that action and reflection are once again dimensions of whole experience rather than separate entities. The "channelizing" of personal processes is a two way street. My behaviour is organized to some extent by my prior construction, and to some extent "tests" that construction, and at the same time it

86Cf. the "body simulator" in the fictional "health through silent conversation movement" (Learning Conversations, p.360) Note the distinction between conversing in order to learn to be better "able to perceive what is going on in your own body" (emphasis added) vs. conversing about my self in action so as to better elaborate the "bodily" dimensions of meaning in what is going on in my experience.

87I can sit and think about going to a lecture, and predict what I might learn there. This is an act, but not the act of going to the lecture. If I decide to actually go, I get up and leave, and have an experience which meets my expectations, more or less. I may also come back later and sit and think about what I may have "learned" from the experience, and marvel that something quite surprising had happened. Nowhere in this cycle was I just acting or just thinking, and at no point does the course of events make complete sense viewed entirely from the past or the future. The meaning is in the full, embodied, cycle of the experience itself—including the quality of reflection that it bears.
generates new experience that invites, or sometimes demands, reconstruction. Reflectiveness has a "fractal" quality in that what we experience as the act of reflection has qualities that express the reflective dimensions of experience at a smaller "scale." At one level of conversation an individual requires a "personal language in which to reflect upon unarticulated experience" (Thomas, personal conversation, 1992). At a finer scale they require means for incorporating a rich enough dimensionality within their actions to leave those actions continually open to reflective reconstruction.

How, in the end, are we to find the unity beyond all of the various dualisms? By attending not only to the dimensions of meaning which we can articulate, but to the dimensionality of meaning embodied in the continuity of whole experience. How are we to navigate a course through the dimensionality and the continuity of experience? By seeking the unity of experience in action, and to do that, as I quoted Dewey earlier, "We need to distinguish between action that is routine and action that is alive...." Enter the robot of isolated habit. Just as my articulation, in the sense of being able to say what I know, is limited by the dimensions of my habitual construction, so my articulation, in the sense of my dynamic embodiment of personal meaning in movement, is limited by the dimensions of my habitual patterns of muscular action. I find myself acting, or failing to act, in ways that do not fit what I take myself to be. Action itself, "lived construing," is where meaning is embodied, and it is already "anticipatory, directional and organized." How am I to reconstrue myself or my actions when so much of my present construction is buried in the inarticulate routine called habit? Indeed how can any construction which is inconsistent with the dimensional pattern of my embodiment be anything but disconnected and abstract? In the sense of full experience it might well be said that I cannot conceive what I cannot embody. In the midst of a routine habitual pattern of embodiment, there are patterns of thought and states of feeling and modes of action that are simply not available to me. If I had a physical part, my body, and a mental part, my mind, that were separate, however intimately related, then it would be conceivable that I could experience a physical or mental change alone, or even that one sort of change might result in another. We have seen, however, how problematic that dualistic view is. If I am a whole, coordinated, psycho-physical system, then I only change as a whole, and if I am bound by unquestioned dimensions of "lived construing," then I am to some extent bound in all ways. The way out is not to begin with what I know, either in the sense of knowledge which I can articulate or in the sense of sensory appreciation which I can rely on, that is, with certainty either thought or felt. The way out, and beyond the horizon of what I know, is to begin with my uncertainty. The conductive quality of experience, the embodiment of meaning in the quality and
sequence of personal action, is the dynamic context of a learning conversation which begins with my admittedly faulty perception of the dimensions of my own action as the only data that I have and working from there, and takes me to a vantage point from which I can appreciate how my starting point was faulty. In other words it is an intentional process for living a psychology of the unknown. My current perception, like my current understanding, however flawed someone else, or my later self may find it to be, is a fitting starting point—if I engage the full cycle of my experience. The tendency for habit to condense into rigid routine is the great obstacle which proves to be a blessing, for the search for the unknown path around it opens us to a wider life of much richer dimensionality than we knew. The central task—and accomplishment—of my work has been to evolve, in embodied practice, ways of carrying on such a conversation.
POSTSCRIPT: INVITATION TO FURTHER CONVERSATION

There are two factors that determine the effectiveness of such a conversation in action. The first is the clarity and dimensional richness of my construction of the exploration. For what is exploration but the search for a goal as yet unidentified? Where I cannot say what I am seeking, I may still be intentional about the quality of my search and I may even have some sense of what kinds of surprise I am open to. By learning to appreciate and articulate dimensions of my embodiment of meaning, and dimensions of changes that I intend, I find a middle way between only going where I have been before and being adrift in the dark unknown. I find the possibility of navigating. And like a navigator, the quality of my work is dependent upon the way the sails are trimmed and the state of coordination of the crew. Thus the second factor is the attention to the coordinated quality with which I undertake the acts of conversing and reconstruing. No thought or feeling of mine is “in the world” except by some physical—that is, muscular—action on my part. Muscular action is my way of “happening,” of being an event in my own experience. I am not claiming that physical dimensions hold any sort of privileged position in the scheme of things, only that because the dynamic quality of change shows no allegiance, attention to the physical dimensions grants significant leverage.

It is customary at the conclusion of research reports to point to the need for further research, usually implying the need for further funding. This work also ends with a recognition of the need for more work, but as the subject matter is the dimensionality and continuity of personal experience as embodied in personal action, I can only conclude by repeating the invitation to replicate and elaborate something of the work itself by continuing on to an active conversational engagement with the “Conversational Introduction to Conductive Reasoning” that follows. Beyond that lies the open invitation to each of us to construct our own conversational personal science and to use it to explore the dimensionality of the embodiment of meaning in our own life.
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APPENDIX 1: A CONVERSATIONAL INTRODUCTION TO CONDUCTIVE REASONING

I. INVITATION TO A CONVERSATION ABOUT CONVERSATIONS

Oscar Wilde joked that sending a letter is a dangerous thing to do because the other person might send a letter back and then, “before you know it, you’re in correspondence.” In a similar way asking a question is dangerous. Some other person, or the world, or your own self, may answer it, and then before you know it, you’re in conversation. This is particularly dangerous as such a conversation involves not only words, but feelings, actions and meanings, and therefore it does not stand apart from the processes of life but propels and channels them, often in surprising directions. Most of us have a habit of treating distinctions within our experience as separate things—mind and body, thought and feeling, knowledge and action. Then we struggle to get the “parts” back into relation with each other. Two and a half millennia ago, the philosopher Parmenedes pointed out that when one begins with a false separation, anything can follow from it. I have observed in my own experience that when we make such a separation, we are continually getting things on the “wrong side.” How then can we have a conversation about the rich multidimensionality of our experience while not loosing track of its unity? Rather than looking at learning and knowing as intellectual things and movement, perception, emotions and the rest as other kinds of things, other “parts” of experience, for instance, can we have a conversation in which we take our experience as a seamless, dynamic whole in which all these aspects are constantly interwoven? Working across the mind-body “split” is not a matter of dealing with “both” (or rejecting the reality of “either”) but of being explicit about our abstracting of dimensions from whole, embodied experience.

Merleau-Ponty described the kind of knowledge embodied in something like knowing how to type as “knowledge in the hands.” I want to pursue the idea that, at root, all knowledge is like that, and further, that life itself has a conversational quality in that the meaningfulness of what I actually do lies in the context of what I might have done instead and how I might have done it—and in what happens next.

What is a Conversation?

Think of a conversation you have had, one that you would consider to be a “good example” of a conversation. What was it about that event that made it a “conversation?” What, in your recollection, were the essential features in the event
that you find yourself referring to when you call it a conversation? Think of a number of other events in which you have participated that were like that event in some way, but which you would not consider conversations. How do those events differ from the first? In other words, what was it about them that made them not-conversations? Do these differences reveal anything about what it was that was "conversational" about the conversation? Now thinking about your experience more generally, would you consider a discussion to be a conversation? Is an argument a conversation? Is a lecture? A dialogue? A debate? Whether your answer is yes or no to any of these or other candidates, the next question is, What are the relevant ways in which they are or are not like your prototype of a conversation? Perhaps some of these events might be parts of conversations, or vice versa?

After you have played with these a little you will be in a position to answer in a more concrete way the next question. What, fundamentally, is a conversation? What attributes would an event or process need to have for you to consider it to be "conversational?" When I play this game myself, I find that for me a conversation is basically an exchange, an exchange with a back and forth, ongoing quality. Thus for instance, a lecture would not be a conversation, though in conjunction with a tutorial session it might be part of one. A lecture with a question and answer period might be a conversation, although a rather unbalanced one. A dialogue might be a formal sort of conversation, whereas a debate might not be, if something is being presented but not exchanged. These are of course, bits of meaning drawn from my experience; yours may well be quite different. One of the underlying assumptions I am making throughout what follows is that meaning is always personal. It is nothing less than, as Laurie Thomas defines it, the relationship between knower and known, not merely some proposition about it, but the relationship itself. Thomas and Harri-Augstein have developed a paradigm of "conversational science" which is intended to go beyond the objectivism of a natural science paradigm and the subjectivism of a phenomenological personal science paradigm. Thus when I refer later to learning or the embodiment of meaning as "conversational" what that means to you will be constructed in relation to such distinctions as those in your own experience which we have just conversed about. In my terms (and I hope in yours), though we are separated in time and space, we have just engaged in a bit of conversation. Strictly speaking, it will not be fully a conversation until you somehow record what you draw from these little experiments and send it to me so that it can have an effect on my meaning, but in the meanwhile I invite you to continue conversing with yourself.

The fact that events can be better or worse examples of "conversations" leads to the possible conclusion that a conversation is not a thing, defined once for all, but that events may be more or less "conversational" in various ways—thus the choice of a conversational paradigm. I will be building my framework around three qualities of experience: continuity, dimensionality and conductivity. By the continuity of experience, a phrase borrowed from John Dewey, I am referring to the fact that experience is always whole, not just a unity but a dynamic unity. All of the various "aspects" or domains of experience are continuous and inseparable. All distinctions have, within the wholeness of experience, a kind of equal status. Such qualities as round or smooth or red are not more fundamental than such qualities as beautiful or frightening. What we might think of as physical qualities or cognitive or emotional qualities are not separable. There is no such thing as a purely physical, purely mental or purely emotional act or experience. The integrity of an event in your experience—what makes it, across all of its physical, emotional and cognitive dimensions, this experience, this conversation, for instance—is what I mean by the continuity of the experience.

By dimensionality I refer to the idea that the meaning of an experience can be considered as located in a personally constructed system of distinctions. Perhaps the simplest and most immediate example of such a distinction is that of directions in space. One of the things we can say about the location of an object is that it is somewhat north or south of some other object. We are thus using north vs. south to establish a dimension for locating the object. If we add east vs. west and up vs. down, we have made a "coordinate system," that is, a system of directional distinctions that establishes a space in which we can then locate an object by saying that it is, for example, 10km north of, 5km west of, and 200m above some reference point. This sort of geometric space is a simple special case, and thus a model of the dimensional, "spatial" quality of all personal meaning. Every distinction establishes a dimension of meaning within the space of a person's experience. If, for instance, we speak of a climate as being northerly or southerly, we are using a distinction, northerly vs. southerly, which is of a very different kind from north vs. south, but if we add to it other distinctions that might be made between climates, wet vs. dry, constant vs. volatile etc. we establish a space of what we can meaningfully say about climates. In fact, we might formally define making a distinction as recognizing "a difference within a context of similarity." That is, I recognize a way in which something is different from some other things which are similar in some way. Thus it is both the difference and the similarity together that define the distinction. "The way things are" is only meaningful in relation to some other way that they "might
have been.” “North” has no meaning except in relation to something which is “south.”

It is not just what we can say, however, but how we meaningfully act in relation to a climate, or anything else, that is important to us. This is part of what I mean by the conductivity of experience. Meaning is always meaning in a context of action. To say that a mountain path is “steep” or “full of obstacles” is only meaningful in relation to my possible intention to climb it. It is not only what I “think” or even “feel” about climbing, but the very way I engage in the act of climbing, that is meaningful—that is literally “full of meaning” for me. What I am about is exploring the idea that learning is a reconstruction of meaning in all of these respects. Personal meaning is played out in action. The meaning of “conversation,” for example, is concrete in the “having” of one, that is, in the conversing.

**What is a Learning Conversation?**

Asking a question, like making a painting or a dance, is a personal creative act. I once asked a question and was told in reply, “If you have to ask, you aren’t ready for the answer.” Aspiring learners are often given this answer, though seldom in such explicit form. In whatever form, such an answer most misses the mark in its failure to recognize that it is often just by asking the question that we become ready for the answer. Finding the next embodiment of the question, the slightly clearer expression of what we do not know, is itself our way of becoming able to grasp the answer. In large part, it is the process of learning.

Learning that is driven by the needs and purposes of the learner, rather than the expectations or skills of a teacher or the logical structure of the matter to be learned, can be described as self-organized learning. Within the conversational science paradigm developed at the Centre for the Study of Human Learning, Self-organized Learning is defined as “the conversational construction, reconstruction and exchange of personally significant, relevant and viable meanings with awareness and controlled purposiveness.” Simply put, a “learning conversation” is a conversation about learning in which the conversational quality of learning is explicit. Learning is always a personal matter and takes place in a context of personal meaning. It is the dimensional, constructed, quality of personal meaning that makes learning conversational. Thus the learning conversation is initially about the meaning we have constructed, as such, and if we persist in the conversation it comes to be about how we construct and reconstruct meaning. In other words, learning, defined as broadly as one wishes, is something we can learn to do better, and the way to do that is to become reflective about our learning. The learning conversation is a vehicle for
carrying on that reflection and cycling the results back into our ongoing experience. Like many powerful methods, its basic structure is quite simple. It begins by producing a concrete record of a performance, event etc. and then uses that record as a lens for reflecting on our experience. Meanwhile, in the doing, it produces a personal language for carrying on the reflection. The purpose of the conversation is to clarify the distinctions that I am already making, and to elaborate my system of distinctions in order to allow me to engage in more richly varied or detailed interaction with my world, that is, to construct richer personal meaning.

The Personal Learning Contract

The heart of the technology for putting all this into practice is the Personal Learning Contract. The Personal Learning Contract, as a procedure, is a formalization of George Kelly's notion of the "full cycle of experience." It is personal in its grounding in the personally constructed meaning of the learner. Even when it is directed toward some practical end result, it is first of all concerned with the learning associated with gaining that end. It is a contract in that it expresses a commitment to action on the part of the learner. In its "full cycle" it is a commitment not only to action, but to action designed to facilitate reconstruction of the very personal meaning on which it is based. Learning is not just something that happens to us. It is something that we do in an intentional context.

The best way to appreciate the elements of a Personal Learning Contract is, of course, to make one. The outline of the process is quite simple. Think of some Context in which you would like to learn something. Write down your Purpose. What is your goal, in terms of something you want to learn, or to learn to do? What do you anticipate doing in order to meet your Purpose? Write down these Strategies. Next write down the Outcomes you expect to follow from undertaking your Strategies. What do you think will happen when you do what you do? Also, how will you know, based on these outcomes, whether you have met your purpose? Now Review the whole thing. How do each of the pieces seem to relate to each other? In particular, how does, for example, the fact that you see these Strategies as leading you to this Purpose tell you about the meaning that the Purpose holds for you? Converse with yourself about this for a while and make any adjustments that seem appropriate. You now have a design for learning in a self-organized way. This is actually stage one of the learning conversation. The second stage is a matter of carrying out the

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Strategies and noticing the Outcomes. Then the third stage is to make another, retrospective, contract.

It is, of course, often true that we don’t really know our purpose until after we have engaged ourselves in trying to meet it, and often what we do is not what we intended to do. So after you have engaged in the process for a time, look back over what you have done. What does your Purpose seem to have been from this vantage? How does it differ from what you thought it was when you began? What Strategies did you actually engage in and what Outcomes actually followed from them? How did you actually judge your success? Write each of these down and compare them with their counterparts from the first contract. How did each differ, and what do those differences reveal to you about yourself as a learner? You can take this new contract as a new stage one and continue the process, learning about your chosen context, modifying your purpose, and becoming gradually more skilled at the process itself, for as long as you like.

The Learning Design Conversation

The Personal Learning Contract is a practical means for attending to the dimensions of meaning relevant to a given purpose and for relating those dimensions to concrete action. A modification of the Personal Learning Contract which I find useful in bringing out the anticipatory quality of learning, and emphasizing the continuity of the experience as a whole, is what I call a “learning design conversation.” It is simply a Personal Learning Contract with one additional element, the Conditions within which the Strategies are carried out. What are the Conditions present at the moment? How might carrying out my Strategies change those conditions? What are the natural conditions of the Purpose—that is, what are the conditions which would have my end as a natural consequence? From the perspective of these natural conditions it appears that my strategies must now satisfy dual criteria. They must accomplish the task in a way that meets the purpose. That is, they must meet the purpose in a way that is consistent with the reasons, within the context, of its being the purpose. A most immediate example is that I am now seeking to complete my Ph.D. degree. To reach that goal in a way that is satisfying, it must be consistent with why I want the degree. If I were to succeed in earning a Ph.D. in a way that was not consistent with my underlying reasons for wanting it, it would not really be the degree that I want. The strategies must also proceed in a way that is consistent with the coordination of myself as a whole person in action in the present conditions. In my terms, they must be “conductive.” Difficulties can arise when (as is often the case) my very conception of the task is incomplete or unclear in such a way that it
seems to imply "obvious" linear, non-conductive strategies. Learning itself is not only something that can be learned, it is composed of psycho-physical acts engaged in by a human person, and thus it is vital, in practice, to include the conditions of our own coordination among those we give attention to if we are to converse about our learning in a fully embodied way. Before we consider that, let us look more closely at the meaning of dimensionality.

II. **The Dimensionality of Personal Meaning and the Continuity of Experience**

Conductive Reasoning can be thought of as an intersection of the dimensionality and coordination of meaningful action. It is dimensional in its incorporation of the dimensions of personal meaning and continuous in its embodiment of the unity of personal action. Think of some experience that you particularly enjoyed. To say that you would like to experience it again usually does not mean that you want to relive the *same* experience, nor even to have a new experience that is identical to it, but rather that you would like a new experience similar to that one in certain valued ways. If the new experience were also different in certain ways it would be even "better." These similarities and differences are what I mean by the dimensions of the meaning in your experience. The more articulate we become about the dimensionality of our experience the finer the range and quality of choice we can exercise about it.

**Drawing Distinctions: three, two, and one card draw, and anticipations**

The most straightforward way I have found to explore the concept of dimensionality is with a deck of ordinary playing cards. The dimensions of meaning and the relationships among them that emerge are concrete, and yet easily substituted for in other, more personally relevant, contexts. The "trivial concreteness" of this game of cards is both an advantage and a disadvantage. Some people find it difficult to "relate to" the whole operation. It may not be easy to care how a card is distinct, except in the context of an actual game. We could just as well use a set of "cards" representing a set of personal experiences of yours. If you find it helpful, think of some personally relevant context and let it rest, as it were, just "off stage." Simply notice whatever parallels emerge as you continue. You might then want to repeat the process formally using your own bits of experience in place of the cards. Now, on with the "game."
Find a deck of cards, shuffle, and draw three cards. Now simply ask, What is some way in which two of these cards are similar and the third card, different. Can you name the similarity? Can you name the "opposite" attribute that makes the third card different? One important note here. It is common to use the word "attribute" as a synonym for "property" and to think of the attributes of a thing as possessions of the thing; they are *its* attributes. I use "attribute" rather than "property" simply because "attribute" is also a verb. These are not qualities that belong to the thing; they are the qualities that I *attribute* to it. It is my way of keeping in mind that the qualities of the objects in my experience are not *in* the objects nor *in* me, but are somehow *between* us.

Draw three more cards. An alternative way of asking the question is, Which card is the most different? Can you name the difference? Can you name what it is about the other two cards that makes them less different? Draw three more cards. Ask again, Which two are more similar, or which is the most different? That is, similar or different in some way that you haven’t already used. You have now just made explicit three dimensions of meaning within your experience of a deck of cards, what within Personal Construct Psychology are called constructs. These dimensions are just the ways in which you might anticipate that the next card you draw will be similar or different from the previous one. They are the dimensions of what you can meaningfully say about the card. One dimension that usually comes up quite early on is red vs. black. Now suppose I offered to give you £5 if you correctly predict whether the next card would be red or black. You of course have a 50% chance of being correct. But suppose instead I offered to give you £1 for every correct prediction you made about the next card. In that case the more things you can say, that is the more dimensions of meaning that are available in your experience of the cards, the better you chances of getting a significant amount from me. In just this way, in "real life," the higher the dimensionality, the richer the experience. It should be noted that this exercise is probably something of a cheat since you have already had experience with cards like these. A "strict construction" would say that the meaning of each of your dimensions is really only in relation to those three cards. Thus knowing which of the available distinctions will be significant, that is, useful in distinguishing among other cards, is itself a matter of anticipation, and always relies somewhat on previous experience with "things of this sort." The point is that a given card is "meaningful" precisely in terms of the ways in which it is like or not like other cards, and these have to do both with past experience and present purpose. A bridge player and a poker player may draw quite different sets of dimensions from the same cards. Also, suppose I had handed you a different set of cards and the first two trios contained strange symbols and colours on them. If the third trio of cards
were two red and one black, would you then feel so sure that red vs. black was a significant distinction?

Continue drawing three cards at a time for a few more rounds. Now draw one card, but just before you do, what significant things can you say about it? Some distinctions are “obvious,” such as that it is either red or black, either odd or even. Some, such as high or low value, face or numbered card, may be less obvious than they seem. In some people’s meaning some curious dimensions can sometimes arise. For example, some have an arbitrary, or conventional, “stipulated” quality. Is an ace a high or low value card, or does it belong with the face cards or the number cards? It depends on the game you have in mind when you come up with that distinction, but it is definitely one or the other. But speaking of high vs. low value, what about a 10? an 8? Where is the boundary between high and low? It might not be easy to say. Also, not all distinctions may apply to all of the cards. Is the queen of hearts odd or even? Another curious distinction that sometimes comes up is two cards in sequence vs. not in sequence. It is a perfectly reasonable distinction, but it really applies not to that one card you are about to draw, but rather to its relationship with the one after that.

Look again at your trios of cards. Notice if you have limited the kinds of distinctions you are drawing. For instance, are you only finding distinctions to do with how the cards look? What about how they might be used in various games? Or even how you feel as you look at them? There are always more distinctions, and more kinds of distinctions, possible than seems evident. When I speak of the dimensionality of meaning, I am referring to just this quality. It is not that there are any ready made dimensions of meaning waiting for us to experience, but that experience is always differentiable in just the way you have been doing with the cards. The distinctions are always yours; they are between you and the cards; they have always to do with your intention in drawing them, and within the continuity of experience there are always other distinctions that you might have drawn instead. One more point: we do not in general have these distinctions and then use them; they are dimensions within our experience. Of course, suppose I asked you to sort the deck into four piles such that for each card you could say three things about why it was in that pile and none of the others. In that case consciously (or unconsciously) drawing some distinctions useful for the task, and then consciously (or unconsciously) using them is just what you probably would do. We might say that the world is not differentiated, but differentiable, though we are so good at differentiating that it often appears the other way round.
Next draw two cards. How many ways can you find in which they are similar? How many in which they are different? This task is of course much easier now, in the context of all of the dimensions you have drawn from the previous trios, than it would have been at the beginning. In a sense, a third card is implicit in the context of your prior experience with the deck. That is, "they are both red" is a significant similarity because you know that there are other cards that are black. They are both rectangles with trimmed corners, but that is a trivial similarity. Since it is true of all of the cards it is of no use in distinguishing them, and so it has no "significance," (and I would have refused to give you a pound for predicting it). "One is a diamond and the other a heart" is a significant difference because you know there are other diamonds and other hearts in the deck.

Finally, draw one more card. How might that card have been different? Of course, there are an infinity of possible ways, but which ones are significant in the context of the deck? The deck provided the context of similarity within which the ways in which that one card might have been different can be significant distinctions. Imagine someone giving you a quick glance at strange looking deck, handing you one card, and asking you that same question, How could this card be different? You would have a much more difficult time. This is just the situation we find ourselves in whenever we have only one experience to reflect upon and nothing to contrast it with. As we will find in a while, our own, largely kinesthetic, sense of ourselves is just such a situation in which if we always act the same way we have no way of appreciating how we might be instead, and so it is difficult to give our present state any meaning beyond "normal."

We have stayed with these cards so long because they are such concrete and yet "trivial" instances of what I am claiming about experience at large. The operation itself illustrates other aspects of experience as well. As I am describing these little explorations I am dealing with abstractions—distinctions, attributes and such. You, however, are dealing concretely with physical cards. "Draw three cards" is something I am imagining, but for you it is a complex physical action as well. That experience has a much wider dimensionality and also embodies the continuity of experience. Just as I can make and use distinctions about the mathematical or colour attributes of the cards, I can make distinctions among the physical, mental, emotional, social etc. dimensions of the experience itself. And just as "dimensionality" refers to a kind of openness or availability for differentiation in my experience (and not to any kind of prior dimensions), "continuity" refers to its unity as a whole experience. We can converse about your explorations with the cards in physical or intellectual or whatever terms we like, but the experience itself has its own integrity, its
own continuity. We may think of drawing a card as a bodily act and drawing a distinction as a mental one, but those are already extreme abstractions. But then, abstracting is itself an act, with its own continuity. Let us use the cards once more to make this concrete in your experience.

Draw one more card. How do you like it? If you could have a “better” card, how would it be different? By now you have ready to hand several useful dimensions abstracted from your experience with other cards. In answering this question you are adding another aspect to the matter of drawing out the dimensions, the aspect of preference. Not only do you have a preference as to where you might want your chosen card to be “located” on any particular dimension, diamond rather than club, perhaps, or even numbered rather than odd, but some dimensions themselves matter more than others—maybe you really don’t care what colour it is as long as it is a face card. Ordinarily these acts, of differentiating and of choosing, are thought of as mental (though in the second case we might admit an emotional component) but of course you don’t become a temporarily discarnate being while you perform them. You are still probably sitting, still holding the card, still perhaps looking over your trios of cards spread in front of you. It is just that the dimensions of how you are engaged in these aspects of your present experience are not obviously relevant. “Choosing” however, is ambiguous. When magicians say, “Pick a card,” they don’t usually mean, “Decide which card you would like.” It is a request to physically reach forward and pull a card out of the deck. But then the usual phrase is, “Pick a card, any card.” Let us combine meanings and “pick a card, a particular card,” or perhaps, “pick a card, any card meeting certain personally chosen criteria.” In order to end up with a “better” card in your hand you require two things, a way of knowing what better means to you and a means for somehow getting such a card out of the deck and into your hand. Try this now. Decide what would count as “better,” then devise a plan for selecting such a card and then carry out your plan.

You should now have in your hand a card that is in some way more to your liking. What did you observe as you made your selection? How did deciding on your criteria “feel?” What kinds of dimensions did you include in your plan? For instance, if you turned the deck over to look at the cards, did you care about the quality of how your hands moved as you did so? In a sense the plan was present as a set of dimensions within the act of physically acquiring the new card. This is once again what I mean by the continuity of experience, the wholeness which gives rise to its potential for many different differentiations, in how we act as well as what we can say.
What we will do next is explore some ways of attending to some of the “felt” rather than “thought about” dimensions of such experience.

"Interlace"

Fold your hands on your lap, fingers interlaced. Notice that one thumb is on top of the other, and that each finger of that hand rests on top of the same finger of the other hand. If you do this several times you will probably notice that the same hand is always “on top.” Switch your hands so that your fingers are interlaced with the other hand on top. Notice how that feels. This is a simple demonstration of the unfamiliar feeling that comes from doing something in a non-habitual way. I would like you to take the matter a step further and elaborate some dimensions of that unfamiliar feeling. In other words, what are the ways in which the “feeling” of having your hands folded one way is different from the other. Note that this is like the “draw two cards” example earlier. The meaning of each quality that you observe in the unfamiliar mode is precisely in its contrast with the “opposite” quality in the familiar mode. Also these distinctions, these ways in which it feels different do not lie in an intellectual processing of the kinesthetic or emotional qualities of the experience. They are distinctions between the feelings themselves; the meanings are kinesthetic or emotional rather than cognitive. There are no restrictions on the kinds of differences you may notice. They may be “in your hands” or they may be about feelings elsewhere. They may seem quite far from the obvious, such as, “I find myself thinking about my mother.” They may be emotional, perhaps surprisingly so. One young girl felt so angry whenever she folded her hands the “wrong” way that she refused to continue with the experiment.

See if you can find three or four different differences. Go back and forth between the two modes of folding as many times as you need. In each case, see if you can name each end of the distinction beyond “familiar vs. unfamiliar,” something like “comfortable vs. insecure,” for example. The labels you decide on are not important in themselves. They are merely what Kelly called “convenient word handles,” and so drawing a distinction is not less “successful” if you cannot find a suitable word for it. I have found in practice, though, that the very attempt to find a satisfactory label draws my attention to the quality within my experience in a much more detailed way. In any case what I mean by the dimension of meaning is the “way it feels different” behind the labels. (You may find a particularly clear instance of this if you choose a label which feels almost but not quite right, and then find a “better” one. What that label “means” is just the “what about the feeling” that makes the second label fit it better than the first.)
Suppose when you first folded your hands I had only asked, What does that feel like? This is, of course, just like the “draw one card” case, and involves the same difficulties. Most people have trouble saying much of anything beyond, “It feels normal.” In a sense, what you have just done is to make explicit a few of the dimensions of what “feels normal” actually means in your own concrete experience. Now unfold your hands and fold them again. Which fingers are on top? Most likely the same ones that were on top the very first time; that is still your habitual mode of folding your hands. To do it otherwise requires thought and attention, and may be difficult even then. Unfold your hands once more. Think about the “unfamiliar” folding and fold them again. Was it easy or difficult? If you managed it, how does it feel now?

One more experiment: unfold you hands. Think again about your three or four pairs of attributes, and think in particular about the qualities of the “unfamiliar” mode that made it different. Now keeping these ways of being different in mind as a guide, bring your hands together in the unfamiliar way. What happened?

**Dimensions of “Grace”**

Think of the most graceful animal or person you can remember. Recall as vividly as you can some episode of observing that individual in action. What was it about the action that you mean (or are referring to) when you say it was “graceful”? Think of some contrasting episodes of observing individuals who were not graceful. How many ways can you find in which the graceful was different from others? The meaning of “graceful” in your experience, at least these bits of your experience, is constructed of these ways in which the concrete episode of graceful is different from the other episodes. For instance, if a significant attribute of grace for you is “moves smoothly,” that takes its meaning in relation to how it might have been instead. Thus the usefulness of finding contrasting experiences; that is where you find the “opposite” ways of moving that give “smoothly” its personal significance. One point of all this is that once we have abstracted these dimensions from our experience—which we usually do in a completely inattentive way—they become “abstractions” and it is all too easy to lose the connection between them and the whole personal experience whose meanings they represent.

Try the same exercise again, this time beginning with a time when you felt graceful yourself. What new dimensions of your meaning of graceful come from considering the matter according to how it feels as well as how it looks? Do any of the dimensions you found in the “interlace” conversation seem to apply? Make some movement, moving forward from the back of your chair or standing up, for instance.
Repeat the same movement, but just before you do, think about the dimensions of your meaning of graceful which you just found. Now keeping clearly in mind the “graceful” end of each of these dimensions, as you did before with the unfamiliar hand folding, make the movement “gracefully.” Observe what happens. This may bring you back to the continuity I spoke of earlier. Concepts, feelings, movements etc. are all abstracted from whole experience. They are the dimensions drawn into the foreground of meaning against the background of dimensions that collectively become “everything else” as in “everything else being equal…”

**Dimensionalizing an Experience**

By “dimensionalizing an experience” I mean the act of abstracting dimensions of meaning from it. It is a conversational process which begins by explicitly recognizing the dimensional character of my experience before I say anything about the any particular dimensions. That recognition provides a space in which I can construct a language in which to both articulate and reconstrue my experience. Dimensionality is the meaningfulness of what did not happen instead. What happens is simply “what happens,” but the meaning of what happens lies in the ways it differs from what else “might have happened” but did not. In addition, what we anticipate about future events are the ways in which what actually happens may be similar or different from both past events and other possible future events.

Recall some experience you have had recently—perhaps an experience of being frustrated in traffic, or of being distracted upon seeing a sexually attractive person, or of trying very hard to accomplish something and either failing or succeeding. In any case, part of what gives it the quality of being “an” experience may by the set of predominant dimensions of meaning within it. But what if my being attentive to just this set of dimensions available in the moment, and not others, is “just a habit?” I am predisposed to experiencing the situation through the lens of these dimensions simply because I have done so before. The situation is frustrating or sexual or effortful not in and of itself, but simply because I am construing its meaning for me in those terms. This does not mean that I am “only making it up,” of course; those dimensions of frustration or sexuality or whatever are “really there.” But so might many other dimensions if I were only open to them. As you recall your experience, notice the prominent dimensions, not just how you felt, or your interpretation of it, but the context within which you made that interpretation. Decide to explicitly recognize that this experience is dimensional. Do nothing initially about the dimensions; just notice them as such. This can open a space in which you can then ask yourself the powerful question, What other dimensions might I use instead
to make this meaningful? What if I observed the shape and quality of how I embodied my frustration? What if I watched that person's movement in terms of artistic composition? What if I thought about the relationship between what I was trying to accomplish and how I was going about it? If you find an interesting set of alternative dimensions available, recall the situation again, or more concretely, go and put yourself in a similar one, and keep those new dimensions in your attention as you "have" the experience. You may find, not just a new experience, but an unfamiliar kind of experience.

If a habit can be described as a disposition to react in some particular way to a given stimulus, then an "attitude" (perhaps most easily observable in a person with an "attitude problem") might be described as a disposition toward a certain style of response, relatively independent of the specific stimulus. It is, in a sense, a meta-habit. Carrying on a conversation that begins with explicit recognition that my experience has dimensional quality before I say anything about what the dimensions might be can lead me to a new, conversational attitude, and a new relationship to my own experience.

**Dimensional Meaning of “Better”**

It is very difficult to improve, especially in any sort of intentional way, if one does not know what one means by "improve." Habits, whatever else they may be, are specific, and so if I want to improve upon my habitual reaction I require a conception of the change which is at least as specific. *How do I want to be better?* Wanting a better card relies on some basis for knowing how the new card would be different from the one I have. The generic command, in effect, to "do something else," is not likely to get a very satisfying response, or to be carried out with any clear consequence. A habit is the embodiment of my conception of the "thing to be done" and tends to distance me from engagement with either the conditions in which I act, or the dimensionality of the personal meaning of what I intend to accomplish by it. To "have" such a concept is both convenient and limiting.

In order for the change to be both specific in the above sense, and general in the sense of applying to many differing conditions, I must address the situation at a higher organizational level than that of the particular habit. Learning, whether conscious and self-organized or accidental, occurs on more than one level. If I engage in an unconsciously directed habitual pattern, I not only become "better" at that particular habit, I also become more skilled at operating unconsciously. I get better at doing what I practice, but also better at practicing the way I practice. Part of what makes this matter troublesome in actual practice is our habitual tendency to confuse
our conception of our ends with what we believe we must do to reach them. This is quite simply to be unskilled in the art of abstracting. To find appropriate dimensions for the construction of a clear idea of how I want to be different, unmixed with the dimensions of meaning of “due effort” and the like, opens a space in which I can find myself free to follow new paths in order to reach new destinations. The central issue, which will be an explicit focus of the later parts of our conversation, is that, within the continuity of our experience, and the unity of our action, the large part of the dimensionality lies outside the domain of what we know how to articulate. If we define learning as an elaborative reconstruction of personal meaning, then much of the process of learning is the development of a language in which to articulate and reflect upon the dimensions of meaning in our experience. The literal meaning of “articulate,” however, is “to connect together by joints.” So it is literally true that before we can say something, we already live it. We embody our personal meaning in the articulation of our own movements. The subject of much of what will follow, and a central task of what I will call a “conductive conversation,” is the bringing together of those two senses of articulation in a single conversation. The overall intention is to make it possible to learn to consider, and to direct, one’s own action in a unified way—to escape the traps of dualism by embracing the dimensionality of personal experience. All of the levels of embodied construction are “going on” at once. The task of the conductive conversation is to navigate the process.

III. WHAT IS “CONDUCTIVITY”?

A friend related a story about a Zen meditation retreat which she once experienced. After an intense two days of meditating, the group took a break. As she was resting, the leader of the retreat approached her, placed a teacup in front of her and asked, “Is the cup inside or outside of your mind?” As she related the event to me, her experience at that moment was of her mind “imploding.” She felt herself in a completely new relationship to what she had been doing for the past two days. Like many questions in Zen stories, both yes and no were incorrect answers, as would be the conclusion that it was a pointless question. Such a question, one that calls, not for a propositional response, but for an appropriate action, I would call a “conductive question.” Thus at that moment the psycho-physical response, the release of mental and physical tensing which my friend experienced as her mind imploding was the proper answer to the leader’s question, and the question carried significant momentum as evidenced by the physically observable response my friend had on recollecting it. This quality of Zen koans as questions that call for a change of perspective or
for an appropriate action rather than for a proposition is an illustration of what I mean by the conductivity of experience. The dimensionality and the continuity of experience are woven together in its conductivity, its quality of ongoing action. Meaning is not "about" experience; it is embodied in it. In the continuity of experience all dimensions have equal status, and thus all change is a kind of motion. Life is not only meaningful, it is dynamically so, and the dimensions of personal meaning not only give structure to how we anticipate events, they are the anticipatory character of our actions.

On "Conductive Reasoning"

This conductive quality of experience gives it a kind of ongoing logical structure. Indeed, I would say that it is just this logical structure out of which what we usually think of as formal "logic" is abstracted. Propositional logic is of two general types, according to the direction in which reasoning proceeds between premises and conclusions. Inductive reasoning proceeds from a number of specific propositions, the premises, to a general conclusion. The premises may be, for instance, statements about observations, and the conclusion is then a general statement toward which those observations are said to lead. The root meaning of "induce" is to draw toward. Deductive reasoning, on the other hand, proceeds from general propositions of some kind to conclusions which are their consequences. The specific conclusions are propositions which are, etymologically speaking, "drawn from" the premises. In both cases the logical process is of the form, "if I know A then I also know B." The elements of the logical process are all statements about phenomena of some sort, and thus the whole process is abstracted from experience. Suppose, however, that we could place not only statements about phenomena but perceived phenomena themselves in the role of premise. If the potential premises include, for instance, my perception of my own action as well as propositional assumptions which I may hold about the context of my action, then I find myself engaged in a new kind of logical process in which the conclusions drawn may include not only other propositions but also other actions. The logical process is then of the form, "If you perceive conditions A and you feel bodily state B, then take the next step C." The process is "conductive" in the sense that one is "drawn along" toward the next step. The term is rich in metaphorical connections, having to do with electrical conductivity etc. all of which seem apt. The process is conductive also in the sense that it is fundamentally about, and in, conduct.

One important consequence of conductivity is that all of the implicit, embodied dimensions of meaning are "operative" during any process of reflection. Thus
while I am trying to elicit as many dimensions of my meaning as possible, the habit-
ual construction embodied in all of those implicit dimensions continue to be
"effective." This is perhaps not so important if I am seeking dimensions of some
"external" domain, but if the domain is that of my own action, then what is required
is not so much a representation of a large number of specific dimensions as an ability
to act from an appreciation of the dimensional character of the experience. The
practical question then is, What dimensions need I have explicit awareness of in
order for me to able to direct the whole in a more satisfying way? Practically
speaking, within the conductivity of experience, learning as reconstruction is always
to some extent a matter of "leverage." Rational is not opposed to irrational, but
rather rational thought and action bear the same relation to thought and action as a
whole that the set of rational numbers bear to all numbers. Reasoning is a process of
drawing from the broader context those dimensions that are amenable to certain
kinds of comparison, and then manipulating that more limited set. Reasoning is a
sort of leveraged construction. Reason is also a phenomenon within the continuity of
whole experience and thus reason in the intellectual sense is but a dimension of the
dynamic structure of that continuity. In other words, it is conductive. And con-
ductive reasoning is the logic of knowledge in the hands.

Conductive Conversations

The learning conversation is a vehicle for becoming more reflectively
articulate about the dimensions of my construction of meaning. In a sense, as I be-
come able to bring more of the conversational qualities of my own experience into
my awareness, I become able to engage in it more conversationally. My central as-
sumption throughout, however, is that meaning is not only personally constructed, it
is embodied. A "conductive" learning conversation is a conversation about the
dimensions of that embodiment. It has all the basic characteristics of a learning
conversation, but by taking explicit account of the conductivity of the experience
from which I construct my meaning, it is a conversation about, and also in, action.
Sustaining such a conversation in a way which is itself embodied requires leverage,
and we can find one aspect of that leverage in an attention to the "psycho-mechan-
ics" of our action. In a human individual, as a psycho-physically whole system, the
psychological organization of an action is inseparable from its physical organization.
Thus the physical factors will be present, either explicitly or implicitly, and will have
consequences whether I take account of them or not. I take the term, psycho-
mechanics, to refer to the psychological organization of "physical" action. In my
teaching practice I sometimes refer to what we normally think of as a physical
movement as the embodiment of a thought, or conversely, to a thought as the organi-
zation of the movement. Either way I am attempting to draw attention to that continuity in relation to which both mind and body, or thought and movement, are abstractions. Thus a psychomechanical approach to my action would include attention to my idea of what I am doing and the mechanical principles at play in carrying out the action. The personal meaning of the action may well exhibit dimensions which are not physical; they may be context specific, technical, aesthetic, emotional, social, spiritual etc. The study of the relationship between the psychological organization of an action and its mechanical organization is but a portion of being conductive, but it is a portion that has high leverage in practice because, as the phenomenologists have it, my body is my way of “being in the world.” So in what follows I am not claiming that the mechanical, anatomical or other such dimensions are in any way primary, merely that they are inevitable. Kelly’s “alternative relativism” essentially is the assumption that while we are free to construe events as we will, we cannot avoid construing them, nor can we construe them without consequences. If that is so of experience of my universe as a whole, it is true in an even more immediate way of my experience of my own self in action. The tacit assumption commonly made is that if the human organism has an underlying physical organization for movement, then that physical organization will operate naturally—and can therefore be ignored. Unfortunately, in practice, this assumption does not take into account the “middle management” problem of learned habit. Perception, especially self-perception, is both relative and adaptive. What we perceive is always difference and change. In particular, if we perform some action in a routine way, we come to attend primarily to the sensory cues that tell us that we are doing it “properly” according to the routine, as for example in the “interlace” conversation. Not only does this make us insensitive to contrasts in the varying conditions under which we perform the action, but because that associated feeling remains fixed, it too becomes invisible, disappearing into the feeling of “normal.” Thus it is that patterns of interference with our natural self-organization in movement can persist.

Dimensions of “Poise”

Suppose that you are over-tensing the muscles of your neck and thus pulling your head back off its natural poise. Suppose further that you have become accustomed to this tensing and thus cannot perceive it. Suppose you had reason to suspect that this tensing was the source of some pain or discomfort and wanted to stop doing it. What would you do? You can, of course, do this deliberately; you can tense your neck and pull your head back. You can then deliberately stop doing it, precisely because you know what “it” is. Try this and notice the differences you observe between the two conditions. Note that this is another “two card” situation, except
that it might be a bit more difficult in that the implicit "third card" is even more implicit, being buried in past experiences to which you may not have been attentive. So it may be helpful to increase the contrast.

Raise an arm over your head, or move it about, while pulling your head back. Continue this movement as you return to "normal" and notice any differences in the feeling or quality of movement of your arm. Most people prefer most of the second set of qualities over the first. Did you? Now note two things about your situation. You just produced changes that you liked, not by doing something, but by ceasing something you had been doing. Secondly, you could cease doing it because it was well defined in your present experience. Suppose, however, that the "normal" you have returned to still involves excess tensing, but tensing which is imperceptible to you because it is so familiar. If I suggest that you stop doing that, what are you to do? You have no immediate way to give concrete meaning to "that." Precisely because you know it so well, you don't know it at all. Indeed, the ultimate dilemma most people face in this situation is that while normal is so familiar as to be invisible, every other possible state carries the same meaning—"not normal." Even worse, since we have a strong tendency to avoid "not normal" states, we seldom have those contrasts in our experience that might lead us to give it a more highly dimensional meaning. We find ourselves always in the situation of having drawn "one card," and lacking anything with which to contrast it, we find great difficulty appreciating its meaning. As Dewey expressed it, "One may lead a horse to water but cannot compel him to drink. If one is unable to perform an indicated operation or declines to do so, he will not of course get its meaning."¹⁰ We have already seen a way out of this, however—at least a way onto a path that leads out—back in the "interlace" conversation. By redirecting our attention from the two objects to the dimensions of similarity or difference between them, we begin to converse on another level. Each of the ways in which the two conditions above were different defines a dimension of the meaning of change. By attending to those dimensions, we can replace the intention to "stop doing that" with one to "change what I am doing in this direction."

Note once more your preferences among the ways in which your arm moved with and without the pulling of your head. For each of them, think about "even more of that." This becomes a sort of outline for a concept. What you had before was a concept of normal and a concept of more than normal, but you were without a con-

cept of less than normal. Now you have a framework for moving in a new way even without such a concept. You have a means for moving, kinesthetically, into the unknown. A note on the process: while I have been using words and talking “about” the dimensions of what you are doing, you have been working directly with the qualities of feeling and moving. Thus for you this conversation is conductive.

Let us take the process one step farther. Here is a bit of simple reasoning that Alexander engaged in early in his self-study. You are working under the suspicion that when you feel normal and upright, you may actually be pulling your head back off its natural balance. If that is so then what feels like balanced uprightness to you is, in fact, a state of relatively rigid holding in a position which is behind such a natural balance. It is reasonable that if being back feels like upright to you, then actually upright would feel forward in contrast. As an experiment simply remind yourself of the supposition that you may be pulling your head back and not noticing it, and decide to allow your head to move on the top of your spine in such a way that it feels just slightly “too far forward.” When Alexander attempted to produce a change by “putting” his head what felt like farther forward than he was accustomed to be “overdid” it, and was forced to follow a much longer path to his discoveries than he might otherwise. So the key to the experiment is “slightly.” As you do this experiment you are, in effect, conversing conductively with the dimensions of your own kinesthetic perception. What requires close attention is the distinction between doing anything and simply giving consent for an unknown change leading to a specific perceptual, dimensional result. One of the things that makes this task subtle, and perhaps quite difficult, is the distinction between quality and quantity of movement. One concept that I have found helpful in attending to this distinction is the idea of a kinesthetic afterimage. If I were to shine a red light at you for a long time and then switched it off, you would see a green afterimage. If you had not noticed, or had forgotten, the red light, you might be puzzled by the apparent sudden presence of green. You would probably not realize that the green was simply your perception of the absence of the red light. There is a kinesthetic counterpoint to this visual situation. If you have been pulling back for long enough that you no longer perceive it, and then stopped, what would it feel like? It is possible for the sudden absence of unnoticed sensation of pulling back to be perceived as a forward movement, or sometimes as an odd sense of “forwardness.” No actual movement is needed and thus almost any amount of moving forward is too much. Of course, there is some mechanical effect, just as a spring that has been compressed for some time will get longer when the pressure is removed, but this perceptual effect is often more dra-

91 Alexander, F.M. (1932) *The Use of the Self*, Dutton, NY
matic. Thus the odd-feeling strategy of stopping a pull that I do not perceive by giving conscious consent to the afterimage, while withholding consent from any “movement.” This would be as if we could switch off the hidden switch to the red light by giving ourselves permission to see green. Of course, it is always possible to see green by switching on a green light, but that would leave the red light unaffected.

Page 2 of *The User's Manual: two useful “facts” and why they are important*

Suppose each of us came into the world equipped with a user’s manual. After the “congratulations on your choice of a Self and we hope you have many productive and enjoyable years of use of it” sort of thing on page one, we would likely find on page two some “useful facts to keep in mind.” Every instrument, and the more complex the more true this is, functions best when used in ways that are consistent with its design. Instruments that are used “improperly” will not do the job as well, and if we persist in so using them can actually be damaged. Some instruments, on the other hand, are actually improved by being well used. Recognizing that these things are no less true of ourselves, we may find a few simple, empirically observable, facts about our own physical organization quite advantageous. Here are two such facts, one anatomical and the other “physiological.”

Anatomical fact: Your head rests on the top of your spine, in such a way that it is more or less free to rotate forward or back at that point.

A simple way to approximately locate this point is to place your fingers in your ears. The point where your head rest on the top of your spine is very near the centre of a line between your fingertips. You may make a rough test of the accuracy of your kinesthetic knowledge of this by observing yourself in a mirror while you tilt your head slightly forward and back on the top of your spine, with your fingers still in your ears. Notice whether your fingers move forward and back in space along with your head, or whether your head simply rotates around them. If they move, it is evidence that your kinesthetic idea of the location of the top of your spine is somewhere lower. Of course, you can move from that lower point, but the organizing directions for the movement will not be quite consistent with the natural organization of the moving parts. This is more important than it might appear, because of the second fact.

Physiological fact: The dynamic quality of the movement of your head in relation to its balance point on the top of your spine is a determining factor in the balance and the organization of muscular tone throughout the rest of your system. This is so simply because it is the first relationship to change whenever there is a change in the movement of yourself as a whole.
This organizing principle is easy to overlook, but it is really quite reasonable, as you have just demonstrated it in the experiment above. The spine not only provides the primary core of support but, since the entire musculature of the organism is organized around its attachments to the spine, and since the limbs are also so attached, it is also central to balance and to the general organization of movement. Our skeletal, nervous and muscular systems are commonly spoken of as distinct systems, but from a functional point of view this is somewhat misleading. Together they constitute a single functioning system which simultaneously provides for the support, balance and movement of an individual. That general function provides the context in which any specific movement we make with any part ourselves takes place, and thus the quality of that general function is always involved in anything we do. What is more, in relation to it my whole coordination can be seen as an example of self-organization.

Self-organization is large scale organization in the behaviour of a system that “emerges” from the structure of the system itself, that is, the expression of relationships already present and therefore not requiring the intervention or control of external mechanisms. A classic example of self-organization is found in the construction of termite mounds found in parts of Africa. When a group of winged termites land, they each begin to gather soil and form it into balls of mud, using their own saliva. There is a pheromone in the saliva of these termites that attracts other termites, so that if two individuals happen to be near enough to each other they end up working on the same mud ball. Thus a greater density of termites leads to a larger ball, a greater concentration of the pheromone and thus a greater attraction to ever more distant termites. At some point, however, one of the growing balls reaches a critical size at which it becomes so attractive that all of the termites come and begin to work on it. Thus the collective behaviour suddenly becomes “organized” and a large, complex mound results. The significant point is that, both during the random phase and also during the highly organized phase, each individual termite is functioning independently, responding only to significant features within its own local conditions—in this case the local concentration of the pheromone. The organized behaviour of the whole population of termites is the collective expression of the relationship between each individual and its immediate conditions. Human coordination can be viewed as an instance of self-organization in a similar way. Each of my “parts” will, if not interfered with, respond to its local conditions—including the needs of support, balance and movement within the context of my present intention. But the functioning of all of these parts together also contributes to the conditions faced by any individual part. Thus the coordinated action of the whole is a collective expression of the relationship between each part and its immediate conditions.
external control mechanism, nor indeed even an internal control program, is required.

You can generate a simple demonstration of this phenomenon quite easily as follows: extend your two index fingers parallel to each other and begin to slowly move the two fingers from side to side. Gradually increase the frequency of this oscillating movement and notice what happens. As you increase the frequency you eventually encountered a point at which the coordination of the movement becomes unstable and then you suddenly found your fingers oscillating in opposition rather than parallel. There are two alternate ways of coordinating this specific movement, and the parameter which determines which one will be expressed is simply the frequency of the oscillation. The “parallel” organization is not sustainable at frequencies higher than a certain level; the parts will not move easily in relation to each other with the required speed. So the system spontaneously switches to the alternate mode.

Now try it while pulling your head back. What do you observe? Are any of the dimensions of difference in what happens with your fingers similar to the dimensions you found in earlier experiments? Once again the differences between the two conditions can be used to frame enough dimensions of an unknown third state to engage in conversation about it. To become skilled in the art of that conversation requires practice and discipline in attending to the details.

The “Find Something I’d Like to Change” Conversation

Here is a simple conversational structure that can be used both as a way of making small changes and also as a laboratory for small experiments with the relationship between parts of yourself and your whole self. Each time I play the inner “find something I’d like to change” game, I find myself entering a “task focused learning conversation” with the potential of opening onto a small scale “life conversation.”

As you are most likely sitting, I have structured it that way. If you happen to be walking or doing something else while you read, please sit for a moment, or just do the experiment while walking.

Step 1. Take a moment to observe the quality of “how” you are sitting, not so much the position or shape etc. of your sitting posture, but the quality of ease or effort, balance, pressure, comfort or discomfort and so on. You may notice certain parts of you that call attention to themselves as being a particular focus of effort or freedom, for instance, or you may be aware of a general quality. If you had to find a
single adverb that described the overall quality of your experience of sitting at this moment, what might it be?

Step 2. Now, find some one thing within your observations that you would like to “improve.” This might be a particular place that is working harder than you would like or it might be a particular way in which you would like the overall adverb to be different. Most people who are asked this question immediately look for something “bad” that they want to make better, but note that it might just as well be something that you particularly like and would like to have more of that counts as an improvement. You don’t have to be bad to get better. The significant experimental point is that your specific observation and your specific choice of a change of quality provide you with a concrete reference for observing change. It is a clear dimension of meaning in your bodily experience.

Step 3. The hypothesis underlying this little experiment is that the specific change you have in mind is in some way related to general changes in the quality of your coordination in the act of sitting. So notice the quality of movement in the poise of your head in relation to the top of your spine. Decide to allow your head to be free to move (rotate) very slightly forward on top of your spine to facilitate a general “lengthening” release of tension in your whole spinal support. Don’t “do” anything. Merely give consent for that small change to happen in the movements that are already occurring.

Step 4. Observe any changes in the particular place or quality that you chose in step 2. If there was a change, how did it compare with the change you had in mind? Perhaps it was the kind of change you wanted but very little of it, or maybe it was a different change altogether. Perhaps your reference didn’t change noticeably at all, but something else happened that you hadn’t anticipated.

You have, in step 4, essentially reiterated step 1. So you may want to return to step 2 from this point, and continue the cycle of the conversation as long as it seems fruitful. If you experienced no observable change repeat the experiment with particular attention to two factors in step 3. First, be clear about your intention in allowing the slight change in the quality balance of your head in order to initiate the general change in the quality of your movement so that it can be, in turn, a context for the specific change you have in mind. Second, in case doing vs. allowing is not a clear enough distinction in practice for you, think clearly about “doing less” as you give consent to the change.

There is a variation on this conversation that is useful when the desired change is “technical” in some way, for example if it is a certain musical quality that
you are seeking. In such a case think clearly, and *abstractly*, about just what technical qualities you want to have. Imagine the musical phrase or whatever the way you want it to be, completely disregarding any concern about how you might achieve it or even whether you are capable of doing so. If you could hire any musician in the world to produce the phrase, and they would repeat it an unlimited number of times until it met your requirements, what would they be? Now take that abstract idea of the sound or other technical product, and set it aside. In a sense, forget about it but remember where you put it.

Now go back to Step 3 above. Just as you notice that you are feeling a general sense of "lengthening" reach out and take up you abstract idea and give consent to it. Observe how the aspects of what happens matches your idea. It may be that you get some of what you want but not all. You can then repeat the process with special attention to the aspects that were not so clear the first time. It may also be that you do get what you thought you wanted, only to find that it doesn't satisfy. Because the technical idea is explicitly abstract, however, you may find it is a much simpler matter than usual to "edit" it. Just as with the cards, being clear about the dimensions of the end that you desire, and distinguishing that end clearly from the psycho-physical process of bringing it about, allows you freedom to chose and achieve ends relatively unfettered by your habitual expectations.

**Conversations About Embodied Meaning**

While we have been conversing and experimenting with some of the physical dimensions of your experience, you might be wondering at this point just how this is related to the continuity of whole experience we began with. Life is not separable into physical acts, mental acts, acts with emotional meaning, acts with aesthetic quality and so on, though we often talk, and sometimes try to act, as if it were. When I speak of something physical, "physical" does not refer to a class of acts, but to a class of dimensions, to a set of qualities. Thus when I spoke of the relationship between a part of myself and the coordination of my whole self, I was not limiting the range to "physical parts" or to "physical coordination" but was referring to my whole self, in all its dimensionality. Every act is a physical act and a mental act and has emotional meaning and aesthetic quality; those are dimensions within the continuity of experience. Indeed, as Dewey said, the only place to find the unity of mind and body is "in action." So as I said earlier, I am not claiming that these physical, or perhaps a better term might be bodily, relationships are in any way primary; they are simply inevitable. A phrase that Alexander liked to use is, "All together, one after the other." It is mostly used to express something of the
complementarity of quality and sequence in movement, but I find it open to a wider usage in expressing the conductive quality of experience that gives impetus to action in all of its dimensionality. "Transcending the obvious" is a phrase that Kelly used to express the openness to the continuing elaboration of meaning that lies just beyond the horizon of our present construction. The routine, robotic, habits that give more or less rigid structure to our daily existence, in whatever domains they are played out, are quite concretely the embodiment of the obvious. Our task is ever to transcend it, and providing a conversational framework for that is the intent of what I call a conductive change conversation.

Suppose that you were about to take a step and wanted to do so in a way that was less limited by your habitual conception of how to take a step, a way that was more consistent with the natural self-organization of movement. How would you proceed? What would you need to know and how would you go about learning it? If we consider your habitual way of taking a step to be the embodiment of your concept of "take a step," then it is in terms of the dimensions of that embodiment that any new way will have meaning. A way to do that which seems to provide a good deal of leverage is the "slightly too far forward" strategy we experimented with during the conversation about "poise." It is a way of taking account, in action, of the "all together, one after the other," the dimensions of quality and sequence. By consciously attending to the quality of poise in that relationship, you are simply attending to the quality of the whole of the movement at its physical beginning. The relationship is no more important than any; it is merely the first one to change, and that is what gives attending to it such leverage. In a similar respect, when we attend to the physical dimensions first, it is not because they are any more important than any of the rest, but simply in commitment to my recognition of the embodiment of the rest. Though we may find it most convenient to construe the act of conceiving of, or of consenting to, a change in mental terms, and the act of making the change in physical terms, the meaning embodied in the act itself is not limited to them. Thus it makes no difference what kind of change we are contemplating. The full dimensional range is implicit in the act. What follows is a simple conversational structure for engaging in such multi-dimensional change.

The Conductive Change Conversation

Step 1: Observe yourself in your present situation. Note two or three physical things about your present experience, the same sort of observations you made in the "find something you want to change" conversation. The rest of the process may be more convenient if you can give each observation a label. Notice in particular
whether any of your observations has any quality of direction to it. For instance, if you feel tension somewhere, does it make any clear sense to say that it is pulling “that way?”

Step 2: Note two or three things about how you feel emotionally.

Step 3: Note two or three things about your sense of the quality of your thinking or attention, or about your sense of your relationship with your environment, whichever seems most salient at the moment.

Step 4: You now have six or more bits of observation of your present experience that span at least three different domains. For each of them ask, What is the “opposite” of this? How do I want to be different in relation to this specific quality? Again it will be convenient if you can label each of these contrasts.

You began with perhaps the ultimate “one card” situation, and with some care, you now stand in an at least six dimensional space that to some extent spans what you may normally think of as your physical, emotional, mental or social, self. As you did back during the “interlace” conversation, think about the contrasting ends of each of your six dimensions. Should you decide that you want to change, that is, to become different, they are explicit dimensions of a new experience, an abstract coordinate system for locating what you mean by “different.” From this vantage, there is no strategic difference between giving consent to the change which is “taking a step” and giving consent to the change that is becoming “different” in this way, and the quality of the movement is equally subject to the condition of your coordination whether the movement is in ordinary “physical” space or this more elaborate space.

Mentally place this set of contrasts “slightly to one side” and take note of how you are standing or sitting. You are about to perform a small experiment in conductive logic. The hypothesis is that if at the moment of consent you are doing nothing to interfere with your natural coordination, then the act of changing from the way you are, in all of those different ways, will be natural and unimpeded, just as taking a step would be. So the first priority is to bring about that condition of unimpaired coordination, and as before that is brought about by attending to the point in personal space-time at which the movement begins.

Step 5: “Allow” your head to be free to rotate forward ever so slightly in relation to the top of your spine in such a way that it initiates a general release from any habitual holding that you may be doing. This “allowing” is itself a skill, of course, so don’t worry about how well you manage it, or even if you “get it wrong.” Whatever happens, and however slight the change, it may be cycled back into the
conversation. As this general pattern is in play, only specific actions whose quality and sequence are compatible with it are possible. So just as you begin to detect any effects of your general order, give active consent to the change you reasoned out in steps 1 through 4. Notice what happens. Observe where you seem to be on each of your six dimensions. Have you changed physically in the ways you chose? The magnitude of the change is unimportant at the moment, only the quality of it in relation to your dimensions. Have you changed emotionally? In other ways?

The process of describing and commenting on the procedure has probably disrupted the process, so you will want to cycle back and repeat the steps in a more continuous way. You may choose to change “farther” in the same directions, or you may wish to choose new ones.

There are two keys to the whole process. Just as in the earlier case of choosing a card that was more to your liking, there are two phases to the process of intentional change in general. We require an articulation of enough dimensions of difference to provide us with an outline for giving consent to a move to an as yet unknown new state. It is what we face when we shop for a birthday present.92 We don’t know what we are looking for, yet we do know the person for whom the gift is intended, something of their likes, something of what we want the gift to express. The clearer we can be about these dimensions of the meaning in the context of the gift that we do not know, the more intentional we can be as we navigate our search. Also, whether we seek an appropriate present, a better card, or a more satisfying state of being, as we make concrete our abstract conception of our unknown destination, the quality of the whole experience depends on the quality of how we undertake the journey itself. While a concept may be abstract, the act of conceiving and carrying it out it is not. The first of these has to do with the dimensionality of experience, the second with the continuity, and the conductive change conversation is a means for weaving them together.

92For a discussion of this and other extended metaphors which I have found useful, and of the metaphorical quality of conductive conversations, see “A Metaphorical Tool Kit” which follows as an appendix.
APPENDIX I A: A METAPHORICAL TOOL KIT

"Is a Metaphor" Is a Metaphor...

We often understand things, events etc. "in terms of" other things, events etc. This "in terms of" refers not merely to the linguistic expressions, figures of speech etc. by which we refer to experience, but to the experience itself. It is a reference to the dimensionality of meaning across domains of experience. Thus we can find metaphorical quality not only in our expressions of meaning about experience but also in the meaning itself, in our perceptions, our comprehensions, our anticipations, our actions.

A metaphorical relationship can be viewed as a relationship between two sets of closely related dimensions of meaning in two different domains. It is not that the objects are related, or even that the dimensions of meaning are. It is the similarity of the relationships among dimensions across domains that constitutes the metaphorical connection. To get a picture of what I mean, think of a point at which a set of lines in various directions all intersect. The point is located on each of the lines—and there are relationships among the directions of the lines themselves (angles between each pair of lines etc.). Now imagine a second set of lines, in different directions and intersecting at a different point, but having similar relationships among their directions. It is this similarity of relationships between the two sets of lines that allow us to describe relationships within one set in terms of the other. This is the essence of a metaphorical relationship. It is the similarity of relationships between two domains of experience that permits us to comprehend (i.e. locate in a space of meaning) one experience "in terms of" the other. It is in this sense that the entire set of operations with the playing cards was metaphorical. Indeed, the dimensions of intellectual, emotional or kinesthetic meaning can be usefully viewed in this way, as metaphors for each other.

I have been using metaphors as tools in my teaching for quite some time now, but I recall learning about their full conversational use from a particular instance of failing to do so. In the midst of a conversation about kinesthetic meaning the other person began telling me that she had been thinking of her head as a cloud. As this was not what I had just asked her to think about, it did not answer my question and so I gently guided the conversation back "on track," and thus declined an opportunity to engage her meaning in a more immediate way. I later realized that I might fruitfully have asked just what it was about "a cloud" that made it seem a fitting metaphor for what she was trying to do. Metaphorical expressions, our own and other's, are just that—expressions. They express, perhaps indirectly, or in summary,
several dimensions of meaning together. Thus a very useful way of engaging in a conversation about ordinarily hidden dimensions is to be aware of the metaphorical implications of what we say.

Notice how you feel right now, placing no particular limit on the range of what “how you feel” might refer to. Pay special attention to the words you use to describe what you observe about yourself. Do any of your words reveal the pattern of your construction of what it means to feel the way you do? For instance, if you said anything like, “I feel tension in my shoulders,” what sort of thing do you take “tension” to be? Is it a kind of stuff? The kind of stuff, that is, that can be in part of you? How do you suppose it got in there? Distinctions between, for example, tension as stuff that is in there and tension as something you are doing, are not trivial because they imply very different strategies if you want to be less tense. Notice any metaphorical usages in your description, and then see how far you can usefully extend any of them. Once you recognize a metaphorical relationship between two domains, elaborating the meaning in one domain can sometimes open the way to great insight into the meaning in the other. Of course, any metaphor can be pushed too far; otherwise it would not be metaphorical but simply two sets of labels for the same meaning. Sometimes there are insights into your meaning to be found at the boundaries where the connections weaken and break down. Exploration of these metaphorical relationships in your own experience, especially when one of the domains involved is “physical” can be a powerful means of elaborating the dimensions of personal meaning without loosing the sense of concreteness in the experience.

Conversation: Your meaning as a metaphor for my meaning

One other important aspect of metaphor has to do with the metaphorical quality of communication. As we interact with each other we each must interpret the other’s words and actions in terms of our own dimensions of meaning. Thus I make sense of your responses to me in terms of a system of meaning which is different from the meaning which that same response expresses for you. If however the relationships among each of our systems of personal meaning are sufficiently similar—not the dimensions themselves, but the relations among them—then our meaning systems will be in a metaphorical relationship. I will continue to be able to make sufficient sense of your responses in my own terms to generate a response of my own which you in turn will be able to interpret in your terms, and so on. Thus we can remain in conversation, even though the meaning involved is personal to each of us. Shared meaning does not mean coming to the same meaning.
A Metaphorical Tool Kit

Self-Organized Learning as Personal Cybernetics:
On Being One's Own Captain

A metaphor, actually two related metaphors that I have been elaborating over
the past few years, to express the relationships my students often deal with is I call
my “Ship’s Captain” metaphor. One part of the metaphor relates to the captain’s
relationship to the sea, and the other his or her relationship with the crew. Both
express aspects of the paradoxical nature of self-organized learning. Active and
passive at once, both director and receiver of learning, the embodied self-organized
learner is captain and crew and ship all at once.

Sailing and “Selective Consent”

A sailing vessel is entirely at the mercy of the wind and currents. Yet, by
properly configuring the vessel itself, by giving selective consent to being at their
mercy, the wind and currents will take the vessel where its captain wants to go. In
general we are passive before natural forces—both outside and within ourselves—yet
we have the ability to be active and make conscious choices precisely by recognizing
the passivities. We are open to an essentially Taoist strategy of getting what we in-
tend by giving selective consent to being at the mercy of various forces. We are no
less passive before all the forces for our consent being selective, any more than a
ship ceases to be at the mercy of the wind if the crew doesn’t bother to trim the sails.
The consent, however, has everything to do with our own intentionality. And it is
the ship itself that changes; it is the dimensions of our own embodied meaning that
we change.

This principle applies no less to the internal influence of my own habits as to
any external forces. In fact, as Dewey pointed out, if I want to overcome my habits it
is precisely my submission to my habits that I can use to accomplish this. I do not
become non-habitual, but I set up conditions that determine which of my habits are
going to have more effect than others. “The real opposition is not between reason
and habit, but between routine, unintelligent habit and intelligent habit or art.”93
That is being at once completely at the mercy of the forces around (or within) me
and at the same time intelligent and able to make choices. On the other hand, when
one gives consent to any particular outcome one also gives implicit consent to any-
things that seems to be prerequisite to that outcome. As a common example, if I
choose to stand up I may not wish to also tighten all of the muscles of my back. I
may even engage in a deliberate attempt to stand without this tightening. Yet if my

93Cited in Jones, p. 100.
habitual experience seems to imply that tightening my back is a necessary condition for standing, then I will do so whenever I decide to stand, and this in spite of all my best intention or effort not to. Thus it is important in what order of priority one gives consent. In practice, I must find a way of making my refusal to give consent to the tightening a higher priority than my consent to stand up, and I must maintain this unfamiliar priority all the way onto my feet. (See Imperial Permission below.)

Here is another small experiment. As you sit on a chair, notice the quality of your balance and support. Think about standing up and notice what changes. With enough practice you may be able to converse about the dimensions of the differences within the sitting when you are just sitting and when you are “about to stand.” Now actually stand up and notice what happens. What sense can you make of this event in terms of the dimensions you drew from your earlier conversations? Next begin again by sitting and this time do not stand, only move forward from the back of the chair. Explore this movement, noticing what effects beginning it with attention to the quality of the very beginning has on the rest of the movement. Finally, move forward from the back of the chair, not intending to stand, but in such a way that you remain open to the possibility should you change your mind. You might think of this as just moving forward with an “option” to stand. Again with practice, and with your primary attention on the continuing quality of the movement itself, you may be able to “not stand up” all the way onto your feet. If something like this does happen where do you located the experience in relation to the dimensions you found in the “interlace” and “grace” conversations.

This whole conductive approach becomes a sort of “personal cybernetics” in the literal sense of being at one’s own “helm” (the word “cybernetics” itself deriving from the Greek for steersman).

**Captain and crew (the executive role)**

The traditional roles of the captain on a sailing ship are that of verifier of reality, by official recognition, and that of giver of orders. The captain’s task is to know what is the appropriate order to give in a given situation, and to give it at the optimum time with sufficient clarity that the crew can carry it out with confidence. The captain does not attempt to help carry out the orders; that is the crew’s job.

The first mate has a role in communication between the captain and the crew: to inform the crew of the captain’s orders, and to give the captain feedback from the crew about the ongoing work to provide information the captain may need in determining whether and how to modify the orders. Things can go awry if the first mate
unilaterally takes on the additional role of telling the crew members how to carry out their tasks.

The captain, upon discovering this difficulty, may be tempted to fall into the same error, either by becoming involved in carrying out her own orders or by attempting to dictate how they should be carried out. The captain is still best served by giving clear orders and then trusting the crew to their own skills. There may now, however, be the additional task of taking the first mate aside and reminding him of the limits of his own role, and to otherwise maintain conditions of organization in which the crew can in fact be trusted to carry out orders without further ado.

This is a model of natural human coordination. The captain is the whole person in their intentional, executive function; the crew is again the whole person in their embodied "carrying out" function; and the first mate is the habitual self, with a preference for the routine and a tendency to run amok and try to exert control over everything. When the captain admonishes the first mate to stop interfering with the crew as they carry out her orders, she is engaging in what Alexander means by "inhibition." "Awareness" is the first mate returning to tell the captain that her order has been carried out, sometimes in spite of the fact that the results of the order are readily observable. A sort of principle of "least awareness" operates, in that it is not the captain's job to know everything; she only needs the high leverage knowledge that leads to conditions under which she is free of a need for specific awareness of as many details as possible. It is not a matter of becoming more "conscious" in the sense of knowing and being able to control every detail. It is one of being "directive" of events below the horizon of control. In the sense of knowing every detailed operation and how it is being carried out, the less she knows, the more smoothly the ship is running. So it is with human coordination.

The Natural Corporation

The natural corporation is another metaphor I sometimes use to express those same three functional roles in good, or poor, coordination. In a malcoordinated corporation it is middle management which has run amok and become overly involved with telling the workers how to do their jobs or even doing it for them. This is usually accompanied by a failure on the part of the executive staff either to articulate clear orders or to maintain conditions under which the organization can function on its own. What tends to follow is that some person or unit is not getting their particular job done satisfactorily. If this is a vital function, some other person or unit will be drafted to do that work. That is, someone who is good at what they do, and largely because they are good at it, may actually enjoy doing it, is now doing
something they are not so good at—not very well—and suffering the double frustration of doing one job poorly and not having their usual reward of their own job well done. Meanwhile, of course, someone else has been drafted to do that job, also not as well as they would be doing their own job, and so on throughout the system.

At the opposite extreme is the model of a natural self-organized corporation. Suppose a group of diversely talented and creative individuals were simply given money and other resources and told, “Do something productive.” These individuals might then self-organize into a corporation in which each individual was free to do their best work under conditions that coordinated with the best work of their colleagues. The collective work of this group would be beyond teamwork (the word team, after all, derives for a term for draft animals which all pull in the same direction), being rather more an ensemble blending their creativity together. It would be probable that something productive would follow, but it would be impossible to predict just what that might be. Normally a corporation has a specific mission; it is actually in the business of producing a particular kind of product. It is the function of the executives to decide and communicate the intended outcome of the collective work, and then to promote conditions which look and feel to each individual worker as much like what they would experience in the idealized natural corporation as is consistent with the production of the product as specified. Management, again, has a two directional communication function. And again all of this is a model of myself as an individual, in which the workers are analogous to my “parts,” which in a well coordinated state are free to function as they will under their own local conditions without being interfered with by specific overriding commands from habitual middle management. Coordination may be defined as a state of inner democracy in which every part that has a contribution to make is free to make it.

**Principle of “Imperial Permission”**

“The queen gives orders, but she does not help to carry them out. The Empress doesn’t need to give orders; she just gives permission.”

I use this principle to illuminate the effortless quality of giving consent to change of whatever kind. It expresses a certain attitude of simple giving or withholding of that consent. Imperial permission carries with it the implication that any of her subjects who can do something that contributes to the permitted object has permission to do so—and significantly, that any subjects who are currently doing something that would interfere with that end have permission to stop. What is “imperial” about the consent is that it is free of concern about the details of how the result is to be brought about. That is the concern of the “subjects.” Indeed, by
attending to the dimensions of what one wants, it is thus possible to give clear consent to something new without preconception of what that something will be. For instance, I may suppose that there is a quality of movement that is delicate enough to free me from a particular habitual tension and give consent to it in spite of my not knowing how delicate that is, let alone how to accomplish it.

**Jazz improvisation**

What we seek in many domains is enough similarity to be able to identify the present case as similar to some set of previous cases and at the same time enough difference to continue to surprise us. Such situations seem to be inherently attractive. A good example is that of listening to jazz. Jerry Coker, in his book *Improvising Jazz*, quotes from a letter from R. Browne of Yale, “the listener is constantly making predictions; actual infinitesimal predictions as to whether the next event will be a repetition of something, or will be something different. The player is constantly either confirming or denying those predictions in the listener’s mind. As nearly as we can tell, the listener must come out right about 50% of the time—if he is too successful in predicting, he will be bored; if he is too unsuccessful, he will give up and call the music ‘disorganized’.... Too much difference is sameness: boring.” So the task for the improviser is to maintain this what might now be called “fractal” relationship of self-similarity in which the audience’s pleasure derives from the continuing state of sustained anticipation.

**The Birthday Present**

The search involved in shopping for a birthday gift is inherently paradoxical. We often do not know what we are seeking, and yet, since we know the person whose birthday is coming, what our relationship with that person is and to some extent what we wish to express with the gift, we do know what we are seeking. There comes a moment when we find just the right gift and say, yes, *that* is what I have been looking for all along. Of course, we could not have been looking for *that*. We may not have known that such a thing existed. Yet it *is* the thing for which we were looking. This is, of course, a very old problem, Socrates’s “old philosophical joke.” The resolution of this paradox, which is a metaphor for the paradox of seeking a change when we cannot know in advance what we will change to, lies in the dimensionality of the meaningfulness of the thing being sought. Because of that dimensionality it is possible to give conscious consent to the unknown. We can know what it will be about the gift, or our new condition, by which we will recognize it as the one we want without knowing what the object which will have these attributes might
be. It is the clarity with which we can articulate those attributes combined with our ability to hold in abeyance our need to know what the object will be before we have found it that leaves us open to discovering the "perfect gift."

Renaissance Art—the what and the how

The word "how" as in "how will you do that?" has a double usage, meaning sometimes, "by what series of what's," and sometimes, "with what quality." We thus treat our action either as what we are doing or as what we are doing, that is, we treat the activity either as a noun or a verb. One interesting illustration of this difference lies in the difference between Mediaeval art and Renaissance art. In Mediaeval paintings it was what was depicted that was important. As long as the appropriate saints and symbols were present to tell the story, how they were portrayed was of lesser importance. The Renaissance painters were fascinated with how they portrayed everything; every detail of anatomy, light, colour and expression was of vital interest. The wonderful irony was that by giving priority to the how over the what, the Renaissance painters were able to portray the same saints, symbols and stories with much greater depth and beauty than had been possible earlier. Of course there are some very beautiful Mediaeval paintings, and the distinction did not appear suddenly at the beginning of the Renaissance, but it is a fruitful distinction even so.

When my daughter was six, we had the good fortune to visit Florence. After strolling through rooms of Mediaeval and early Renaissance paintings of "Annunciation's" and "Madonna's", we turned a corner into a room full of Botticelli's. There was a beautiful "Annunciation" near the door and as we looked at it I remembered a similar one we had seen earlier. I asked my daughter, "What's the difference between this one and that other one we saw before?" After some deep thought, she replied that the difference was that in this one you could tell that, "Mary knows that what the angel said was real and not just a dream." That was the sense of reality that Botticelli's attention to the "how" achieved. If we look at the quality of our own actions in a similar way we find that a Renaissance character is open to us; here as well, when we make the quality of our means more important than our end as we conceive it, we can gain our end in surprising ways that are more beautiful than we thought possible.

Swiss Rail

A useful metaphorical model of coordination is the Swiss rail system. Not only does each train depart and arrive on time at each station (or nearly), but if a passenger needs to transfer from train A to train B, they find that train B has left its ori-
gin at such time that it arrives at the transfer station shortly after train A. To get from Zurich to Schwyz I must take the Lugano train and transfer at Zug to the Luzern to Chur train. Of course the Swiss trains are notorious for departing and arriving on time, but what constitutes the “coordinated” character of the system is that not only does my train leave Zurich and arrive at Zug on time but that the second train departs on time from Luzern at such a time that it arrives at Zug very soon after I arrive. Thus the coordination of the system is not only a matter of each train’s operation but of the interrelationship of the functioning of the various parts of the system. The trains are scheduled in such a way as to constitute a system, and that system is not only organized, it is coordinated. It is a reasonable simulation of a self-organized system. When I consider my own coordination I find that I am a self-organized system that has that same quality of relationships among my “parts.” Indeed, I find a hierarchy of relationships among relationships.

Sport as metaphor

One of the easiest arenas in which to observe the continuity of action is that of sport. There is a wide range of effectiveness among players and in one player at different times. There appears to be an inverse relationship between the degree to which one would attribute the quality “natural” to a particular bit of athletic performance and the degree to which the performer can be observed to be interfering with their own coordination. Changes in the quality of thinking employed by the player are quite observable. When the major league outfielder runs down a fly ball, we can literally see the moment when he concludes that he will not be able to reach it in time. Typically, his response to this conclusion is to muster a final burst of effort, which often ironically causes him to shorten himself just enough to verify his prediction of failure. It is ironic because often the same dive without the shortening produced by his extra effort would have resulted in making the very spectacular catch he was after. It seems to be a common feature of daily life as well that the very effort we make to accomplish our ends actually limits our ability to achieve them. Indeed the very notion of effort is often counterproductive. As Alexander summarized the common situation, suppose a person employs a certain means to achieve some end, and fails because the means were not sufficient or appropriate to the task. Rather than recognizing this fact and altering the means, what the person typically does is try again, only harder. This indeed is a socially valued strategy epitomized by, “If at first you don’t succeed....” Yet what it amounts to is nothing more than an amplification of same the inadequate means employed the first time, and they are still inadequate, only more so. Not only that, but the amplification is
accompanied by a second set of activities which serve the function of giving the person the feeling that they are making due effort. They know they are trying hard precisely because they can feel the effort. What the person must do to produce this feeling of trying is in all probability far less suitable for gaining the original end than was the first ineffective means. In the end, though the person has failed, they can enjoy the additional feeling of virtuousness for having “given it their best effort” thus avoiding noticing that they have acted unintelligently by persisting in following a course that has proven itself to be ineffective. Track and field is a good place to observe this phenomenon. Whatever the result of having competed using this principle of effort, the result is the feeling on the part of all concerned that the runner could have done better if they had only “tried harder.” There is an alternative principle available, however. Perhaps one of the best illustrations of that alternative in practice is a video of Florence Griffith Joiner’s world record 200 meter run in the 1988 Olympic Games. The picture shows “Flo Jo” out in front of the other runners, smiling, running very fast but with no evident effort. She simply seems to know that further effort would be pointless, that anything more she could possibly do would make her slower rather than faster, as can be seen quite clearly by observing the runners behind her, all of whom are making just such a counterproductive effort. As she crosses the finish line the commentators are reporting that when asked how she became able to run so much faster than before, she had said it was because she learned “to relax while I run.” It is clear from the video of the race that she did not mean the kind of passivity or collapse that many people call relaxing. She is working very hard, nearly as hard as she productively can, but without “effort.” Indeed, effort has sometimes been defined physiologically as just the kinesthetic perception of the muscular work that exceeds the actual needs of the task. The irony for most people is that we systematically build that feeling of extra work into our very concepts of our actions—as if to provide kinesthetic confirmation that it is we who are responsible for the results. In my teaching I have often had students who, when moving in such a way that they were not doing their accustomed great amounts of extra work, experienced a pleasant “effortless” quality but also a very disconcerting sense that they were not performing the action but that it was “just happening.” They can sometimes find the experience quite frightening. But Flo Jo’s case shows what the external results can be when a person gives up this need to feel that confirmation.

These are just a few of the gradually elaborating metaphorical structures that I have used in my teaching. They have been a laboratory space for experimenting with the relationships, in practice, across a whole range of embodied meanings. Constructing one’s own metaphors can provide useful tools for grasping—and exploring—the more general structure of one’s system of personal meaning.
APPENDIX 2: ILLUSTRATIVE SESSIONS: DESCRIPTIONS AND TIMELINES

Appendix 2a: From The Videotape

The following are descriptions of the videotaped sessions found on Appendix 3a. Each begins with a brief setting of the context of the session followed by a narrative timeline which is intended to "tell the story" of the session in such a way that the viewer can find and follow the significant events. The first number at each paragraph is the time within the session. The second number is the cumulative time on the tape.

1. Lynne

Lynne is a massage therapist and a teacher of the Alexander Technique. I asked her to have this conversation primarily because I wanted to explore ways of demonstrating the conversational aspects of working with my hands that I discussed in the section on Teaching Practice. I asked Lynne in particular because from our earlier conversations I knew that she would be able to articulate her perception of what was happening. In order for this to be a real conversation, however, Lynne needed to have her own purpose. She chose a perceptual matter that she had been pondering, her receptivity to the sounds around her. As our conversation went on she came to find that her relationship with her auditory environment had its own conversational character. She was also interested the qualities present in the surface of the water of the lake outside her window, which afforded us the opportunity to explore the conversational quality of her experience of her environment across several domains. What follows is a narrative timeline of events on the tape.

{0 min.} In the first six minutes I lay out what it was about the nature of the hands-on portion of the conversation I hope to illustrate and then we begin to explore her purpose with those features in the background. I bring up the qualities I hope to illustrate: conversational quality of hands, continuous questions, vector questions, conversation without nouns and ask if she can relate them to her prior experience. She does so, though she seems to find the last one a bit abstract at this point. As our two purposes wind together through the remainder of the session there are times at which each serves as a vehicle for the pursuit of the other. Indeed I find that the explicit laying out of my purposes in such a way as to provide a frame within
which to pursue her purpose seems to illustrate a common strategy in these sessions, both taken as a whole and at smaller scales within the session.

{6 min.} I invite her to “forget” everything we’ve said and pursue her purpose. She finds that she has two. “I’m attempting to open out my auditory world...and secondly I’m really interested in how water moves.”

{8 min.} This leads me to an indirect invitation to consider the idea of qualitative unity, that is, that we might seek the same qualities in her kinesthetic, auditory and visual experience, that she might find the qualities in her own standing, in the sounds around her, or in the water. I am pointing toward a dimensional view of action in which

{10 min.} I invite her to “listen.” She reports a change in her “focus” and in her kinesthetic and spatial sense—which continue to change as she attends to them.

{11.5 min.} I ask for a specific short term goal, and she replies that she has “a lot of tension...in my face area, and I can feel it in my eyes...I’m doing more than I need to.”

{12 min.} I use my hands for the first time to ask about the quality of poise of her head on top of her spine and the response of her upper torso—followed by an explicit question, “I’m wondering...if I move this way, and you come along with me, if anything else happens. What’s happening?” As she moves in response she notices a “wanting to get it right” though she doesn’t know what “right” means. She does have a “kinesthetic reference point, of something light and easy, a sort of billowy feel, and being more to take in more information.” She agrees that this ability may be a product of her own coordination, which leads us to a conversational view of openness to information.

{14.5 min.} Around the idea of conversation, she says, “I think I have a lot of “organizing” which has a certain physical tightness... so there is a lot of screening and holding out rather than shaping.” I suggest indirectly that this making of herself into “the appropriate listening device” is a preconception, and invite her to listen without it—an experiment.

{15.5 min.} Another question with my hands: “Does it make a difference if you’re moving ‘this way’ and decide to notice that bird...how does the sound feel?” She replies that it has a blending quality, that “I feel as if it blends into who I am rather than enters through a doorway that I’ve agreed to form.” She readily accepts my claim that that is also a good description of the intention behind what my hands were doing.
Appendix 2: Illustrative Sessions

{17 min.} An explicit "continuous question:" "I'm not 'doing' anything because I don't know what's right. I'm just saying if I go this way, what's your response?" The question and the answer change as I ask. I move my hands to a new place, "so I can ask a different question," which she clearly understands kinesthetically. As the question continues, its elaboration becomes a new question. Lynne's response is that the question "had more of the sound of a chime--expanding..." This expanding elaboration of my question and her answer embodies once again the conversational nature of the interaction as the dimensions in her response provide the frequencies of an expanding question.

{19 min.} While continuing the conversation with my hands, I reframe my role as providing an external framework within which can more fully enjoy what she could accomplish on her own. We then draw a parallel between my hands as a reference and the floor, or the earth, in that role--not freedom in a vacuum but freedom in relation to.... As I talk, she continues to experiment and observe.

{21 min.} A two part demonstration of "vector questions:" My hands are in the same place, moving in basically the same way, the difference being my intention, the thought behind the question. Lynne's response, and her experience of it, demonstrate the complex vector quality of the interchange.

{23 min.} We move (with a momentary renegotiation of purpose) to the question of the qualities of moving water in relation to the qualities of sound and movement we explored earlier. I ask, "How does the water look in relation to the field of sound?" She finds a similarity in the way in which, in the field of sound, "there wasn't one overriding note." What I can see is that there is no one overriding note in her movement either.

{24.5 min.} Her difficulty in relation to the variety of qualities she finds on the surface of the lake is that, "Sometimes I move away from it because--I don't know how to let myself--take it in." I suggest that she come back and begin with herself. The next few seconds is a complex bit of dialogue in which I keep my hand on her head while we scan across the lake observing different qualities in the water. This continuous question seems to hold the kinesthetic and visual components of the moment together in a way that changes how she looks at the lake.

{26 min.} Some questions-with-the-hands are not translatable, as is the case at this point, but they can be readily comprehensible nonetheless. It is followed by a dimensional experiment, an attempt to find the same quality in movement and in visual experience. She found a quality of "depth" and "when I thought 'depth' I had a sense of myself much more clearly--through my whole torso--so it made my
previous experience of myself seem rather ‘flattened,’ although I had had no reali-
tation of that until the change occurred.”

{28 min.} Hands again, to ask about the inner meaning of “depth” in re-
tion to the visual meaning; we pursue for a moment the idea that that inner depth is
the embodiment of the meaning which makes possible the perception of that quality
in the outer world, although it may be finding it in the outer world that allows us to
bring it back and recognize it in ourselves. Lynne agrees and notes, “and by that one
experience my use of ‘depth’ is now changed.”

{29 min.} Once again I ask if there is anything she wants help with, giv-
ing her the role of directing my assistance. She is concerned with some remaining
tightness in her back. A “pretty big change” follows from a manual question at her
mid back. As she puts it, “Your not doing anything really shows me what I am
doing—and whether I want it or not.” There is a “spaciousness” with many directions
within it. We look at how we can “make the whole thing clearer by attending to how
it’s expressed in one particular place.”

{31 min.} With one hand on her back and one on her shoulder, I ask
many questions in rapid sequence and she responses with a complex shift in her
whole way of moving, which she is aware of but cannot translate verbally. It had “a
continuous movement, almost a billowing sense to it... once I started changing there
was an agreement to go that was very easy.”

{33 min.} The question comes back to the original one of how this way
of being relates to her receptivity to sound. Lynne’s own voice sounds noticeably
different to her, as do other sounds. “It’s more like being wrapped around by sound
than being hit by different sounds.”

{34 min.} Taking things one step farther, we experiment with letting a
clear attention to that easy way of moving be a context for attending to the surround
of sound, and to any particular sound within it. She finds a wider choice among
sounds that are “more pleasant.”

{35 min.} Bringing the visual back in, I ask about how the water looks,
and point out that this time Lynne does not tighten her face to “look.” Just as it is
easy to be unaware of how we are doing things at the beginning, it is easy to not no-
tice when we demonstrate in action that we have learned something. So pointing out
a way in which her action is changed is merely another aspect of my role of provid-
ing auxiliary perception. As she looks at the water, she is aware of how her relation-
ship to her perception has changed.
{35.5 min.} We conclude by reviewing our purposes and discussing the conversational qualities of what we have been doing. I put my hands on one more time as the manual channel of that review process, and then add in one more question that points beyond the session.

{38 min.} With my hand on her lower back I ask her about her experience of the relationship between what we have been exploring and her concept of what she must do in her back to “support” herself. We notice that the water has become much calmer.
2. **Truman**

This was about the third time I had seen Truman. His purpose was clear, specific and urgent. He had been within months of completing a novel, his publisher already gearing up its advertising campaign, when he found himself completely unable to continue writing because of severe pain, primarily in his forearms. He found the idea that the pain was the product of something he was doing as he wrote to be a useful one, and in the first few sessions had made noticeable progress in alleviating it. He actually set up a mirror near his desk to help him observe himself at the computer and wrote the steps in the process he wanted to follow on cards in front of him on the desk. He had in fact made enough progress that he was mostly free of pain when he was not at the computer, and could maintain a moderate amount of freedom as he “just typed.” What brought him to this session, however, was the sense of utter failure he felt when he attempted to bring that freedom back to the task of actually working on the novel. As he reports at the beginning of the session, he knows what he ought to do, but at the moment of truth he doesn’t do it. Truman is imaginative, energetic, “full speed ahead.” Thus I found myself constantly maneuvering to stay ahead of where he thought we were going in the conversation, adopting a directive rather than an interrogatory style, at times setting up multiple choices or making descriptive statements for him to assent to rather than eliciting distinctions by asking questions. I continually proposed experiments for him to do and asked him to report his results, leading him step by step through the implications of the previous experiments.

{0/39 min.} As with Lynne, the first six to eight minutes are taken up with Truman laying out his situation as he sees it and my framing it in the context within which the conversation will proceed. Truman volunteers to act as a classic example of “what not to do.” He is indeed a classic example, but rather of a person who cannot distinguish between ways of going about his task that are different at a fundamental level, and thus perceives his problem as a lack of will. “...I know this is good—and I don’t do it.” I am essentially setting up a logical argument. Truman recognizes the first premise, that his discomfort is the product of his way of going about the task of writing. The second premise is that his immediate difficulty is that he cannot distinguish between different ways of going about it except, or until, one begins to hurt. Thus my proposition to him that it is not “simple perversity or lack of will power; it is a lack of discrimination.”
Appendix 2: Illustrative Sessions

As a bit of support dialogue and to renegotiate our general strategy, I remind Truman of what he has been able to do and what it implies for the present task. He does know how to make the changes he wants—when he isn’t writing—but seems to lose that knowledge “in the lion’s den.” He is a classic “endgainer” but he also has real reasons for being so. How can he follow a strategy of taking the time to let his means be more important than his end when his end is very important?

Continuing to lay out the logic of his current way of going about things, we come to the paradoxical strategy of making his attention to his means primary and his end secondary, precisely in order to improve the quality of the end. This requires a continuing conscious choice; the old choice is the unconscious default.

Truman sees as his real problem not the act of typing but the act of “creating,” of solving creative problems having to do with his plot or characters. His embodiment of his concept of the work of creating is clearly visible as he tells the story of his concerns and reveals something of the meaning that his tension holds for him in relation to his creativity. “...if I lose ‘this’...would that really interrupt these light bulb times?” I challenge this connection, again on “logical grounds,” that is, by making the conductive logic verbally explicit. We are talking about the psychomechanics of creating fiction. This opening to the exploration of this psychophysical frame introduces another premise in our “argument.” The act of creative problem solving is no less physical than the act of typing, and is thus just as much a matter of coordination. And thus Truman can use the same strategy that he has previously demonstrated in regard to typing.

Truman expresses concern that his original physical symptoms seem to be returning. We engage in a bit of formal logic drawing out the implications of the fact that they had gone away. This leads to a little “debate” about the necessity of the tension. Truman recognizes the improvements he made, and is willing to accept the possibility of bringing them into the task of creating, but has “never tasted creating and the smoothness.” This brings us back to our starting point. We might say that Truman has an unfortunate personal meaning for the concept of “creative tension.” I propose as our hypothesis the idea that the relationship to creating is the same as it was for sitting and typing; it is not the act that is the problem but his way of going about it. What he has to give up is relying on a certain associated feeling.

Truman buys the hypothesis but laments that he feels “like an alcoholic...I have testimony with my teeth and my arms, you are right—but when I’m in it, I’m—totally oblivious.” This is precisely the need for consistent conscious
choice to attend to factors that may not seem related. This draws us into our formal experimentation.

{17.5/56.5 min.} By inviting him to think about a real task relating to the real novel, I am framing his real present situation as a logical argument of the kind that we have been talking through. As he thinks about his characters in their situation, I ask him to observe where he feels that. He takes this as an invitation to the present moment, an invitation to engage in a moment of real problem solving.

{18/57 min.} As Truman begins to consider his writing problem, he launches himself into the familiar physical pattern that embodies his concept of being creative. When I ask him to “notice what you are doing with your neck in order to remember,” he is able to describe what he had been unaware that he was doing. I propose that what he gets from that tensing is the feeling by which he knows that he is “remembering,” although it is unlikely to contribute to the effectiveness of his memory. It is essentially a challenge to his robotic assumption of what it means to engage in an act of remembering.

{20/59 min.} I briefly use my hands to engage him in a “secondary” conversation while he is verbally distracted by his explaining the nature of the problem he is working on. This helps him to move out of some of his tension before he goes back to the problem. My intent in doing this is simply to increase the contrast available as he returns to it. In the midst of his working I ask for a report of how he feels different, and he is able to tell me in greater detail where he noticed the changes associated with his return to the problem. This is what I call Truman literally embodying the problem.

{21.5/60.5 min.} I suggest that there is something in the quality of how Truman is moving as he wrestles with the problem that is the embodiment of the “problematic” quality of the problem, and further, that that quality is observable. I can see that quality in his moving. I use this observation as a basis for arguing that the idea of Truman’s psycho-physical unity has useful consequences.

{23/62 min.} If he is embodying his concept of solving a problem with that pattern of tension, then even when he engages in the “verbal tricks” designed to free up his thinking, he continues to carry that tension with him. The harder he tries, the more he does it in the old way. Truman has already demonstrated his ability to choose a more satisfactory way of moving that he found more graceful, easy etc. as long as he is not engaged in “writing a novel.” The question at this point is, “Is it necessary to not be writing a novel for three months...?” Would three seconds be
enough? Thus we approach the matter of making attention to the means primary by small steps. He becomes easier just by considering this.

{26/65 min.} Truman observes that he feels freer, but then, “Of course I panic right away...and say, but David, of course it feels freer—because I’m not thinking about the problem...but then how would I get the book done.” Here we are again at our starting point from a new perspective. I point out a strategy suggested by Dewey. When faced with the problem of an habitual pattern, since anything that we might do that seems related to the problem becomes just another stimulus for the old pattern, we need to find something to do that seems initially unrelated to the problem at hand. This is what Truman has just done.

{28/67 min.} Because he has made this “unrelated” change in his way of “just sitting” he has the opportunity to go back to the problem, but as long as he makes primary the continuation of the qualities he likes in that, he will be unable to solve the problem in the old way. Before setting up the next experiment I deliberately preframe the experience with a bit of fanciful dialogue with the feelings that will follow. “...the feeling will be...”

{29.5/68.5 min.} Back to thinking about the problem: he catches himself in the act of tightening his forearm, which suddenly doesn’t make sense to him. “Why am I tightening here? I never thought of it.” Truman supposes that it is something he is “conditioned” to do. I suggest that it is a matter of meaning; the feeling of the tension means that he is working on the problem. We engage in a series of experiments and observations.

{31/70 min.} Throughout the last several minutes I have been “sneaking in” bits of work with my hands, and Truman has been getting generally more and more easy in his sitting. Having noted the connection between the meaning of the tension in his forearm, I introduce the idea of multiple dimensions of meaning for the feeling of tension, or its absence. Ordinarily I would do this by asking questions to elicit what a person might find in their experience of their arm, but in this case I have put it into a multiple-choice form, noting some kinds of things it might mean and eliciting only Truman’s assent to each. At a verbal level I am being directive rather than overtly conversational, but the words I suggest are again mere labels. In order for Truman to assent, or not, he must seek a dimension of meaning in his experience of his own arm that corresponds to each label. Both the seeking and the finding of such dimensions are expressed in observable, though extremely subtle, effects on the quality of his moving. As my suggestions derive from my observation of these effects, I would claim that at this point Truman and I are engaged in a real, conductive, conversation.
Appendix 2: Illustrative Sessions

{32.5/71.5 min.} Based on this experience of finding many meanings for the freer feeling in his arm besides only “not making enough effort to solve the problem,” we initiate a new experiment. Truman catches himself beginning to tighten his neck, and makes a fresh choice to stay with his original priority. I make this issue of holding to his priority decision explicit, especially the aspect that he is free to go back to doing it his old way in a moment if he wishes. This is done for two reasons; first it is in keeping with the “experimental laboratory demonstration” character of our interaction. It is like the sort of experiment students perform in science labs in which the format and the instructions for how to do the experiment are given. It is unlike many of them in that these are real experiments whose outcomes are unknown until they are performed. Secondly, making the reversibility explicit opens a working space in which, because any outcome is acceptable, true experimentation is possible. The actual experiment is engaged “hands on” in order to minimize losses in translation.

{35.5/74.5 min.} Truman reports a “floatingness” in his neck. I bring this physical observation back to the wider context by asking if there is anything like this “floatingness” in the problem when considered from where he is now. He decides to “get back into it” and tightens slightly as he begins to do that. With my hands I remind him not to get back into it, but to consider it from the perspective of his new choice. We engage in several very small cycles of guided experimentation. He finds that he can mutter his way through a bit of the problem with a varying degree of attention to that new choice. He wonders if moving his neck helps him to keep the freedom. My reply, working with my hands, is yes, in the sense that it “helps you to know what kind of quality that movement has, and that makes the choice explicit.” It becomes a concrete example of the chosen quality which one might seek to find in one’s torso, or arm, or in the problem.

{40/79 min.} Truman proposes his own experiment of “non-verbally” thinking through the problem on his own. He looks as if he is in rather unfamiliar territory, but he is willing to persist with his experiment. There is also a quite noticeable difference in his sitting now compared with the beginning of the session. His “report of findings” is quite interesting. He went along for a while, then felt a moment of “panic” during which he thought that although this all sounded good to him, he would have to “go back to the real world” of his own desk. He decided to bring his attention back to himself, however, and made a fresh choice. He then brought the problem back, and shortly after that a “new angle” that he hadn’t seen before “wafted in.” I follow his observations with a review of the process from my viewpoint as a sort of public validation of his, again part of a support dialogue and a
post-framing of what Truman has accomplished in a way that may point toward his future work.

{47/86 min.} As we preframe the discipline of his future practice on his own, I work a bit more with my hands in the interest of his leaving the session with a clear impression of the quality that he has found.

{50/89 min.} Truman finishes with a new purpose: “To do this and come back to you with things that I found that are blocking it.” [He subsequently did this and has continued to progress through a series of little “crises” like this one.]

{51/90 min.} We conclude with my question about Truman’s impressions of this whole process in relation to the question of discrimination with which we began, and his concern about his ability to continue the process on his own in his own world.
3. Miriam

Miriam is a violinist who has also been teaching violin, especially to children, for several years. She has also recently begun teaching the Alexander Technique. Her work with me has been largely directed toward applying the technique to the improvement of her violin playing, but she is also always interested in how and why I do what I do as we work. In a recent session we had been exploring the continuity between the dimensions of the quality of movement in her standing and playing and those of the sound and musical qualities she was after. This session was to be about the further conversational pursuit of that continuity, but when she arrived she noted that she was feeling restricted, both in her general sense of ease in herself and specifically in her ability to get what she wanted from her violin. She had worked a bit too hard while practicing the previous day and could feel herself carrying that overworking into the present. As she put it, she had never fully “put the violin down” after practicing. There are thus three levels of purpose evident at the beginning of the session. She wants to be free of the physical discomfort, free to play with ease and intention unimpaired by past tension and within that context free to make finer technical musical choices about the piece she is playing.

{0/93 min.} Miriam begins directly with a straightforward purpose. She had practiced a long time the previous night and feels as if somehow she had “never put [the] violin down.” So she says, “I can kind of do what I want to do, but not quite. There is something in my way.” My perspective is that her kinesthetic ideas are mixed in with her musical ideas. This conversation is about how to separate them out in order to find a wider range of choice of ways of going about playing. I remind Miriam that she already has skill at attending to her playing within a context of her coordination, at making her coordination primary and the playing secondary as she plays. She recognizes that she has reversed this order and is thus stuck with a “package” of interfering tensions.

{2/95 min.} As she considers this choice of priority the quality of her standing is already noticeably different. I ask her to play with that difference. She observes that her playing is “some better.” So I ask what, in particular, is better, and what she means by “some.” She replies that there was “less interference between my musical idea and what’s actually coming out,” but that her hands are still cold and she can still feel that though she can do what she needs to, “something is not good.” This something is a “something in general” which seems to related to her having
played, a something extra that, since she didn’t really need it, was all too easy to retain.

{4.5/97.5 min.} The first experiment begins with my request that she find a quality in her balance as she stands which is the quality she wants in her playing, and also a quality which is what she had felt as restrictedness in her playing before. She finds these qualities and reports that they are “the opposite ends of the same things.” She has found a clear example of a dimension in her experience, with these two qualities defining points on a “line.” Her purpose now can be expressed as to move farther in one direction on that line, toward something which is more like one quality and less like the other. The experiment is to think of giving consent to moving along that line as an act, and using what she knows about allowing a change in how her head and body move as the way that act is to be performed. Her Alexander-based skill thus provides a means toward a specific, dimensional end. Miriam does this and reports that she does seem to have more of the quality she wants.

{6.5/99.5 min.} She repeats the procedure, using moving in that way as the initiation of her bow coming up. This movement is different, but she wants to reserve judgment until she plays. But that is the “end.” I review what she has just done. The test of it, in her terms, will be whether she can continue it as she plays. The hypothesis is that if she does, that quality will be in the music as well.

{8/101 min.} The full experiment at this point is for Miriam to think about the musical version of that same quality, how she will know when she hears it—this is the same dimensional end in an extended context—to repeat the procedure of finding the quality she wants in her standing and then using that to initiate the movement of bringing her bow up, and then to simply think of the playing as the continuation of the same movement. I leave observation of the changes in her standing and her playing for the viewer.

{9/102 min.} She is “greedy.” She wants it all. The difficulty when she plays this game by herself is that she wants “all of it right away.” This leads us to a discussion of “altogether, one after the other” in relation to the various “shortcuts” that we always seem to be seeking. (We did come to a more satisfying resolution of this discussion after the session.) But I bring the question back to the playing, and specifically how it was less than satisfying, that is, if she played again and it was “better,” how would it be specifically different. I am seeking a dimension of her meaning of better.

{12/105 min.} Miriam finds the difference most clearly in a quality in her bow changes and in a musical quality she calls “depth.” I check to be sure that the
label clearly refers to a perceptual dimension in the sound. Miriam notes that “in physical terms...I haven't brought my legs along.” We agree that bringing them along would be another expression of more “depth.” This is the idea of the qualitative unity of experience. Her musical idea, her auditory idea and her kinesthetic idea are distinct categories, but the same quality is present in each, and is indeed what knits them together into a whole experience. It is thus an attention to that single unifying quality by which she can organize her action in such a way that she can rely of the coordination of herself as a whole system. This idea leads to the next experiment, which begins, as many do, with “think about....”

{14/107 min.} “Think about “more depth”...what is it...in the movement at the point of each bow change that would count as more depth.” The experiment is to repeat what she has done, with that thought in mind. The whole quality of how she brings her violin up is quite different—as is her playing.

{17/110 min.} The “hire any musician in the world” game: I claim that the musical intention comes in at two points, before the act of playing—so there is a clear idea of what you want—and in the act of playing, at the very end. Having this intention clear, and not entangled with kinesthetic preconceptions about how to produce it, is a matter of abstraction. My little strategic game for being clear in this is to imagine hiring any musician in the world to play the piece, as many times as needed until they get it just the way you want it, and think only about how you will know when they have, to think in purely musical, auditory etc. terms. Miriam plays this game, builds her musical idea and then sets it aside and attends to her coordination in the act of playing. I use my hands in the conversation to bring the movement dimensions clearly to the foreground of Miriam’s attention.

{19.5/112.5 min.} Miriam plays with this idea and finds that the music had some parts of what she wanted, and not others. Of the important parts, she “missed one.” The next cycle is to think about that one missing part, that is, about the one way in which the playing would be different with that part in place. She is also aware of the aspect of her general movement that seemed to be interfering with it. So I suggest playing with the intention of moving in such a way as to allow that particular musical dimension to be more the way she wants it, while giving up any preconception of how that will happen.

{21/114 min.} Beginning by “finding” the quality she wants in her mid-back and her legs, Miriam performs one more experimental cycle. I continue conversing with my hands while she plays in order to help keep all of the dimensions present. With my hands on her knees I can feel when she is moving with the quality that she wants, though I do not know in any prior sense what that quality is. I only find out in
conversation, but that conversation also gives Miriam a reference frame in which she can make specific choices. It is significant at this point that she could have designed and performed this experiment entirely on her own. The utility of my assistance, both in setting up the explicit experimental plan and in continuing the manual conversation while she carried it out, is in increasing the resolution of the distinctions that she is able to make and the clarity of the experience, which I anticipate will bear their fruit as she reflects on the experience on her own later.

{24/117 min.} We finish by observing how Miriam is in relation to her observations at the beginning. She has succeeded in expressing her musical intention and at the same time her physical restrictions are no longer present. Her playing, both the qualities we can hear from the violin and those we can see in her movement as she plays, are markedly different from what was observable at the beginning of the session.
4. **Penny, Part I**

Penny has a simple goal. She wants to feel more comfortable and at ease with herself. She has a job, as many people do, which makes that difficult to achieve with any consistency. Penny is much more comfortable than she once was, and she has become gradually better able to perceive and articulate distinctions in her experience. She can still be drawn into old patterns of tension by conditions at work but she is getting more skilled at drawing herself back out of them. This session was inspired by an earlier one in which she found that she felt rather freer than usual across her shoulders and at the same time felt a bit of restrictive tightness in her legs. This provided an opportunity for an explicitly conductive conversation in which she wove concepts, perceptions and movements into a consistent logical structure in order to get more of the quality she liked. This session was not intended to be a recreation of prior one, but as she began with a very similar self-observation it is quite similar, though because we enter it with an awareness of what we are about there is a bit more reflection on the process folded into the process itself. As we share an interest in the evolution of the method itself, the conversation has a rather more leisurely pace than it might otherwise have had.

{0/118 min.} Following the pattern of the other sessions, the first five minutes are given to setting up the framework for the conversation, negotiating purposes and making our working hypotheses explicit. Penny is aware of qualities of both freedom and restrictedness in herself as she sits, the one more evidently in her upper body and the other in her legs. I suggest the premise that her situation has a learned component, that is, that these qualities are dimensions of how she has learned to sit.

{5/123 min.} The question “Where do you feel the most free?” begins a straightforward eliciting of specific dimensions as I ask Penny, essentially, to find meanings in different places. As the label for the underlying dimensions evolves from “free vs. restricted” to “free vs. closed down” to “widening vs. crunched” many of Penny’s distinctions are expressed gesturally. This leads to a sort of disclaimer.

{7/125 min.} I make explicit my distinction between meaning and labels, that what I am hoping to draw her attention to with my requests for labels is precisely the distinctions in her perception by which she decides that a given label seems to fit, but that the *meaning* is always in the ways in which the feelings etc. are different; the labels are merely labels.
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{8.5/126.5 min.} We clarify that the “pulling in” in her legs and the crunching in her middle is a matter only of geometry. This leads to a general sense of “pulling in toward the middle of myself,” which also has other potential, non-physical, dimensions available.

{10/128 min.} Two more disclaimers: She need not include any of these other dimensions in her conversation with me, but is free to converse with herself about them if she wishes as we converse together about the “public” dimensions of her sitting. Secondly, though I may propose my own labels for what I think she means by something in an attempt to carry on our conversation, she ought not let me get away with using a label which does not seem to fit the dimension in her experience to which I intend it to refer. This is about her meaning and she is in charge.

{11.5/129.5 min.} I ask her to notice what she particularly likes about the quality of freedom in her upper body and to see if she can find that in her legs. This quality is “hard to find,” but it is present along with the quality of pulling. Her ability not only to find opposite qualities in different places, but to find them in the same place, reveals the dimensional character of the distinction. The presence of that freedom in her upper body provides an unambiguous example of its meaning which makes it possible to find it in her legs, where it is not so clearly present. As we converse about this “freedom,” I am being abstract, but she is not, having direct access to the original data of her own experience.

Throughout this session it appears at a verbal level that I am carrying most of the conversation and much of her contribution is a series of nodding “uhuh’s.” The “real” conversation, however, is composed also of the redirection of her attention to inner dimensions in her experience and the changes in the quality of her movement. From this perspective my verbal descriptions are merely provocations and benchmarks for that larger conversation. And it is not only her conversing with herself that is conductive in this way, but the conversation between us since my contributions are not responses to her expressions of assent, but to the observable changes which are the products of her inner conversing. Her task is to pursue a certain conversation about her own meaning in such a way that she increases her level and range of choice in relation to it. My personal task is to find reasonable ways of articulating or describing what she is doing and how, and to do so in a way that is of present use to her. We are helping each other with our tasks by bringing them together.

{14.5/132.5 min.} I ask Penny about her awareness of her general sense of support on the chair in relation to this dimension of freedom vs. crunching. She again finds both qualities, each more clearly in some places than others. Reminding her of
the skill she has attained in making changes in her coordination of that general sup-
port, I propose an experiment: essentially to produce the change she knows how to
produce, but keeping that particular dimension of freedom, which she has just made
clear in her awareness, as reference. This little experiment is a concrete illustration
of how it is that what we are engaged in is not the Alexander Technique but a syn-
thesis of Alexander's work with Kelly's. This distinction will come up later in the
session.

{17/135 min.} As a debriefing of the experiment, I ask three questions. Penny observes that there was in fact more of the specific quality she had in mind in
the movement of her head and neck, from the lack of a sense of a "dividing line"
between parts, she deduces the effect that the change had on her whole torso, includ-
ing the part that had provided the prime example of that quality.

{18/136 min.} These observations lead to a fourth question and another ex-
periment. Building on her experience with that particular distinction between free
and restricted, as embodied in the change that just occurred, she goes back to the
same process, letting her head move "even more freely in that particular way," and
observing that the even freer quality actually is present. I then ask her to notice if it
is also present now in her legs and to "recognize" it in the "parliamentary sense,"
implying both perception and consent. As she does this the quality changes. She ob-
serves that on the dimension of free vs. restricted her legs have become "30%" more
free. These changes which she is feeling are extremely subtle, but they are visible.
In a sense what I am doing, in relation to my purpose is recruiting Penny as a remote
researcher, proposing experiments that only she can perform and listening to her
findings. Care is needed here to ensure that her purpose rather than mine is primary
in her experimenting. The significant point is that the immediate consequences of
this primacy of her purpose are observable phenomena. I can see it being so. A
further point is that it often happens that my little "digressions" are serving the
function of allowing time for Penny to carry on more of her own inner conversation
uninterrupted while both of us are occupied at a conceptual level.

{20.5/138.5 min.} Penny checks back in with the original question of how she
feels in general "just sitting." She feels "freer and more open all over...." She has a
fuller appreciation of being freer in that particular way. I elicit further dimensions,
"Are there any other ways in which you are feeling freer?" She notices that her free-
dom has a "circular" quality, a sense of a fuller geometry. Her gesture seems to in-
dicate a relationship between the freedom and her support on the chair, so I ask
about this. She feels "lighter" and less "tight against the chair."
I ask if Penny has any questions about what we have been doing. She reviews what she has done and decides that it "makes sense" to her. But her "whole legs still aren't coming along." I suggest that "maybe we need more dimensions" to work with. Perhaps if one distinction leveraged some change, having several will leverage even more.

In a sort of "laddering" I ask if Penny can "take apart" the quality in her legs that she doesn't like. She finds a quality of "tightness" and one of "heaviness," thus coming to a two dimensional view of the movement of her legs. The opposites of these for her are "openness" and "lightness." From the way she says them these are clearly labels for particular qualities. I introduce another premise, that while the new state of being that she is seeking can have these particular qualities because she has articulated, and thus can intend, them more clearly, it will also have its own integrity. It will be a whole. What makes the exploration interesting is that as we intend certain qualities, the wholeness implies that what other qualities the new state will or cannot have, are unpredictable. It is by insisting on these predictions that we get into trouble when we attempt to change. Giving our allegiance to that wholeness, and its implications, is part of our strategy.

We recall the specific qualities of freedom, the circular widening, lightness and openness, not as isolated choices but in contrast with the qualities of crunching, heaviness and tightness. We don't know how she will be sitting in order to be more "that way." But it is possible to give conscious consent to sitting in that unknown way. We have previously referred to this as the "Penny strategy." In the present case the strategy is to think about these specific qualities, to suppose that there is an unknown way of allowing her head and whole self to move that is sufficiently clear that her legs will also clearly have those qualities, and then give consent to moving in that unknown way. I invite Penny to give the strategy a try.

She does so, and after several seconds of subtle change, feels a need to "move around." We converse a bit about the implications of this felt need, a bit more support dialogue. Her whole general way of sitting, her relationship with the chair, and especially her feet on the floor, are considerably changed since we began. She looks much more at ease, and the quality of her expressions of assent to my comments is richer and more solid. She specifically notices that one leg seems "more willing to come along than the other." This leads us to a more focused inner conversation, this time one leg "conversing with" the other in the way her upper and lower halves did earlier.

We begin by clarifying her awareness of how her "better" leg feels in relation to each of our working dimensions, and then noticing how her other
leg is different in regard to each. While she attends to the “negative” qualities in order to ask this last question, she begins to take them on in a general way. This is an instance of how an idea can be an organizing factor in action. If she can become “crunchier” that easily, why can’t she become freer with equal ease? The answer is that she could if she made the choice, but that habit is precisely the making of the other choice without being aware of having done so.

{35/153 min.} I describe the details of an experimental conversation and Penny carries it out as I do. By first attending to the specific qualities, the way of moving, that she wants and then giving recognition to her head, her torso and her left leg moving “that way,” she gets either a clear contrast between the observable qualities in her legs or she finds the qualities she wants more clearly in her right leg as well as her left. Then the deciding to let the right leg be more like the left is a matter of simple, unambiguous choice, and her attention to her general coordination sustains a clear context for that choice. As she carries out this experiment—and I can see her doing it—she finds that she is able to find more of her desired quality in her right leg, but is surprised by the way it comes about, not in the order that she had “orchestrated” in her mind. By being clear about her destination, she has been able to get there by an unknown path.

{37.5/155.5 min.} I expand the reference frame by asking how the relationship between Penny and the floor relates to the qualities she has just been observing. She finds some of the “pulling in” quality and also the distinct “concentric” squeezing quality.

{39/157 min.} Once again she experiences both of the qualities of several dimensions, making it evident that these are not separate qualities to choose between but the dimensions of the choice.

{40.5/158.5} I invite her to be aware of each of her “this rather than that” choices and to give consent to those qualities, particularly in relation to the floor and the chair.

{42/160 min.} Penny proposes that if she can get more of the particular quality of lightness she wants in her relationship with the chair, she will be better able to experience that quality in her feet. I invite her to do the experiment on her own and to do her thinking “out loud.” She clearly demonstrates her skill with the process as she draws together much of what we have built up together.

{44/162 min.} Referring to a quote from Dewey, I make an implicit invitation to a wider conversation about how what she has just done in relation to herself and to the floor extends to the quality of any other relationship. This invitation springs
from this session but also from other conversations we have had about her own wider purposes. It is a small set piece on the priority of attending to quality in relation. It also serves as a review of what we have done in the session. The general quality of Penny’s sitting and listening, and of her gestures of assent, are quite different from what they were at the beginning. Her feet are calmly resting on the floor and she sits with a relaxed uprightness. There is a sense of clarity and specific reference to her responses to my comments. As I tell her again, “I’m talking about words. I’m being abstract, but you’re not because you’ve got the original data that the words are just labels for.” It is observable that she has. This becomes a short discussion of how this original data is the basis for a “personal science.”

{48/166 min.} We conclude the first part by checking back on where Penny seems to be, in her own experience, in relation to each of the dimensions we developed at the beginning.
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5. Penny, part 2

{0/169 min.} Penny and I have had a significant amount of fairly straightforward hands-on experience with the Alexander Technique. So one of the most important things about the preceding conversation is that it was entirely "hands-off." It was for Penny a demonstration of the extent to which she can make these improvements in her own terms and for herself. Our conversation about how what she has been doing is, in a sense, the opposite of the Alexander Technique is a transition to the second part of our session. The focus of this second part is a simple question: If Penny is able to accomplish what she has in that conversational way, without any manual assistance, then what is the relationship between what I do with my hands and what she has just done without them?

{3/172 min.} I recruit Penny and what she has learned in Part I to the task. Any decisions I might make about how to intervene with my hands would be empirical "guesses" based on my observations. Though I have become rather skilled at such guessing, in order to serve Penny’s purposes she doesn’t need to guess. So I ask her directly what she wants my help with.

{4/173 min.} Penny finds that her overall sense of herself in relation to the qualities we have been exploring is that she is about "70%" where she would like to be. I relate this to the idea of “all together, one after the other.” The clarity of the beginning has much to do with that of the whole process of change. I suggest that to this point we have been rather casual about the level of detailed attention we have given to the beginnings. I have merely said, “You know how to allow your head to move with this quality...” and left the matter to her present level of skill, which is evidently about 70% of what she requires. We might pursue a conversation about that finer level of detail in the same form as we have used, and I suspect she would be able to make further progress.

{5/174 min.} I invite Penny to engage in that conversation later, whenever she chooses to take the required time. But for the present I offer the shortcut of using my hands to provide a reference frame that allows her to make more sophisticated distinctions sooner.

{7/176 min.} I invite Penny to recruit me to her purpose by telling me specifically what she wants me to do with my hands and with what intention. She draws on her past experience to ask that I put my hands on her neck with the intention of enhancing an "opening up" rather than "pulling in" quality. I accept her request on
two accounts, first that the scale of the change at the beginning is so fine that it is easy to miss the distinction unless the reference is clear enough, and second, that as she had noticed earlier, the path toward the change may not be the one that one expects and thus one may miss the choice of taking it.

{9/17 8 min.} As I begin to place my hands on Penny’s head and neck I make a distinction between giving her the other 30% of discrimination, which I will not do, and providing a frame of reference against which she will be able to find it for herself, which I will. So that her experience of my hands will be in the context of the dimensions of the change with which she is already familiar, I ask her to notice something in herself that she wants to change, and what it is about that change that will make it satisfactory. This is entirely in her dimensions. As I bring my hands back to her neck, I ask her to decide that she wants that particular quality or set of qualities to be present in the movement there, and at the same time to recognize that we don’t know what the combination will be.

{10/179 min.} She moves with more like 90% of her desired quality, reporting that, “That was very nice—I didn’t realize I was moving that well.” I make the side observation about the aesthetic reward of what we are doing. When my hands are in contact with her and she is moving that way, we both can enjoy the aesthetic quality of that movement. I continue conversing with my hands and she continues to respond with an ever finer quality of movement. In terms of the general methodology of learning conversations, this conversation between hands and movement is a micro-scaled version of “talkback.”

{11/180 min.} My next question is, “how is it different from what you thought it was going to be?” Penny replies that she has found a new dimension, which she labels “smooth” vs. “rusty.” I ask if the smoothness is present in her lower half also, and she finds that it is as she moves.

{12/181 min.} Since one of her particular issues was the quality of her feet on the floor, I note—while conversing foot to foot—that as the movements involved are so small, the presence of the smoothness can be quite exquisite. This also provides a very fine reference for smoothness as I go back to her neck. “Maybe more smoothness is the other 10%—in order to then ask, ‘is my foot resting on the floor smoothly?’”

{13/182 min.} Penny finds this quality is “so minute that it’s difficult to detect,” but decides that “it has some of the quality of smoothness,” more than a moment ago, which provides a dimension for further choice.
Having asked what Penny wanted next, I bring my hands back to her neck. She decides that she wants to be “lighter” and immediately becomes so. I bring my hands to her shoulders and arms in order to draw her attention to the “lighter” quality from her head and neck to other parts of herself, particularly to her arms, which have not been as fully included in her attention as they might be. I bring one hand to her shoulder and the other to her knee as I ask her how she is feeling in relation to the earlier sense of “pulling in toward the centre of herself.” This provides an expanded context in which she can respond, and she finds that she no longer has the sense of pulling in. In response to my request for general questions or observations, Penny notes that her left side, where my hands had been has the qualities she wants more fully than does her right side.

A note on my perspective at this point: it is Penny’s dimensions of meaning that make it possible for my hands to have an effect on the quality of her movement. It is in relation to her dimensions that the movements of my hands can be, for her, meaningful questions. Using her left arm and leg, and my hands, as references, she is able to allow more of the change she wants in her right arm, and then leg. As her right arm moves through space, it is also “moving” in the Aristotelian sense of becoming more like her left along the particular dimensions of interest which she is attending to. The one movement is a vehicle for the other. My hands at this point are both inviting the movement of the first kind and giving external recognition to the movement of the second kind. As I first place my hand on Penny’s leg, there is a clear, but small change, and I ask her if she noticed it. The change itself, in response to my hand, was already evidence of her ability to distinguish the qualities involved. The point of the question is to confirm that she is, in a sense, aware of knowing what she knows. It is a conscious change.

Recalling what Penny said earlier about the order of a change not being the one she had expected, I find a quality in her response that seems to be associated with the direction in which she expects the movement to proceed. This is one of my empirical guesses, which I test by bringing her earlier discovery into the present. Thus we make explicit our “psychology of the unknown” by giving conscious consent to an unknown path while attending to the dimensions of meaning of the intended destination. This verbal conversation is abstract, but the more direct conversation between my hands and her leg make the matter quite concrete at this moment. Indeed it appears that Penny’s conscious recognition that she is consenting to the unknown sharpens her awareness of qualities of the change.

As Penny continues to elaborate the change in her leg, and the rest of herself, in conversation with my hands, I bring the verbal conversation back to
our starting premise that the clearer we can be about the dimensions of choice the easier it is to choose. But we have discovered the dilemma of the choice that we cannot know before we have made it. This leads us back to the paradoxical open permission we have been experimenting with, to be clear about the dimensions by which we will recognize the change we intend and, recognizing the integrity of the change, to consciously consent to whatever other dimensions of change may be required. There is “danger” in that consent, but if I know what I want I may be willing to accept it.

{19/188 min.} I conclude by bringing us back to the other basic premise, that the wholeness of Penny’s response, the wholeness of the change, will have as its foundation the wholeness of Penny herself and her coordination. I bring my hands back to her head and neck, renewing that channel of the conversation so that we are conversing across the whole spectrum toward a clear conclusion.

{20/189 min.} Finally I ask Penny about her middle torso, which had been her initial best reference for the quality of freedom she sought. She finds that “it’s no longer ahead of the rest of me. The rest of me has caught up.” As I look at her I can see that indeed she has.
Appendix 2b: From the Audiotape

The conversation recorded on the audiotape (Appendix 3b) took place over two meetings in the early spring of 1995. It was intended as a reflective retrospective of the work that Ann and I had done together over a five year period, with a particular focus on the general question of how her purposes evolved. On the tape Ann tells the story of those five years from her point of view, how and why she first came to work with me, how she discovered wider applications of what she was learning, and the even wider applications she hopes to make in future. As is often the case in our conversations, there is also a good bit of my own attempts to articulate my perspective as well as some sharing of little treasures, such as interesting books etc., that we have each come across. I confess to being somewhat hesitant to include the entire conversation in raw form, and being tempted to edit out my own musings. I have left it as it stands, however, because it was a genuine conversation in which Ann turned every digression to her own ends, with comments beginning something like, “Yes, and that is just why....” I believe that in its full form it captures a bit of the conversational flavour of our particular ongoing interaction. This tape is also quite different from the videotaped sessions on Appendix 3a in that it is a recollection of past work rather than an illustration of present work. It is thus broader in outline, and consequently this discussion of it less detailed. Its character is rather more anecdotal than illustrative. Its importance lies primarily in giving the listener a sense of the shape of our work together over time as Ann’s sense of her own purposes evolved.

The conversation is loosely organized around a set of questions which I ask Ann, although she shows a consistent knack for saying a good deal about each succeeding question before I ask it. There also seem to be two levels of discourse weaving together, a general level of talk about “how purposes evolve” and a more personal level about the elaboration of her own.

Side one:

0-10 min.: I begin side one by introducing my general question of how what one thinks of as one’s purpose expands into something else over time and my need to address this question in terms of psycho-physical wholeness. Ann identifies herself as “a perfect example” of such a process. We have a bit of a general discussion of the purposes people bring to their interactions with me, and the difficulty of maintaining a balance between leaving them free to be self-organized in the long run and
ensuring enough concrete positive results in the short run so that there will be a long run. She then gives the early history of our encounters, recounting how it was that she first came to one of my classes and how that first interaction affected her.

10-20 min.: In response to my question about what it was in this early experience that brought her to come for lessons, Ann recalls that she had an initial primary physical purpose—to find relief from a stiff neck. Beginning with this intention to deal with her physical discomfort and anxiety—she describes herself as “suffering from the mind-body split”—she started “coming for a patch” of lessons every so often. She found two sorts of things happening early on. One was that she recalled having experienced on rare occasions a sense of wholeness, a kind of “feeling in my body” that she was now beginning to experience as a consequence of something we were doing “on purpose.” The other was that she began to become involved with an organization of parents concerned about the curriculum in their local school district, and she was finding herself gradually better able to handle the delicate and stressful situations that arose. Again in response to my question, when and how she first began to discover that what we were about was wider than she had thought, she recounts the story of her rewriting of the initial public statement of the group and her recollection of the experience of being able to do a calm and invitational job of it despite the stress of the situation. This was when she began to realize, in the achieving of it, that what she had originally come for had been to “put the physical and emotional together in the practice of doing something.”

20-45 min.: The rest of side one is a recollection of how she came to see, on the one hand how she was learning something that she could do for herself—she clearly recalls the time when I said, having just suggested a certain release as she lay on the floor, “Now, you don’t think I did that, do you?” and beginning to believe that she really was capable to making the changes she valued—and on the other hand how that something was what she calls “the queen of the sciences” which she elaborated and applied in her endeavours ranging from the politics of the parents’ group to her own parenting to getting the greatest benefit from the yoga classes which she began to take. There follows a, for the two of us, typical bit of conversation ranging over the religious roots of over-effort to the sexual dimensions present in everyday interactions to the lesson in which her young son’s laughter taught her how powerful and subtle learning really is. As she says at the end of side one, “Again, that’s the work, that’s the learning, starting off saying, ‘I’ve got a stiff neck’ and ending up with a very different meaning of what the conversation was all about.”
Side two:

0-10 min.: Side two begins again with the question of how Ann’s purposes, or her awareness of them, changed over time. Her initial purpose was simply relief from sometimes painful tension, but she was vaguely aware from the beginning that there was more to it than that. She describes her continuing work with me as at first “a purely id generated activity.” As she recounts her progress, she came to find herself not only “moving more freely” but being freer; not only did her “muscles feel better” but she became calmer, less nervous and able to “make better choices about what I want to do.” Her learning went beyond the physical to the contexts of what she thought she should be doing in her life. She found herself “moving to a different level of ought,” a different basis for making choices about what to do and how. She reports that in the midst of the many difficult things she had to do the previous week, she found that she was better able to do them effectively when operating at this other level. But she finds that what she is also learning that while it is good to be able to be definite about what needs to be done, it is also useful to be able to let go of it and find that there are other courses open. As she describes her perception, “If you have a jellyfish for a backbone you can never get a proper spine, but if you have a well determined spine you can soften up as much as you like and you will never turn into a jellyfish.” Sometimes the idea of great change can be upsetting, seeming to imply either that there was something wrong with you if you needed such change or that the new state is a delusion of some sort. But on balance, Ann finds, the sense of increased freedom she found has great value for her at many levels.

10-20 min.: Returning to the question of the awareness of purpose, she agrees that it seems to be the case that, as she had a sense early on that there was more to it than the merely physical purpose she had come with, and part of her purpose was to find out what that wider purpose might be. It seems to us that we have been engaged in an exploration, in part a search for the hidden dimensions of her original purpose, in part a quest for new purposes. We talk about this matter in terms of the “birthday present” metaphor. In this way we have pursued an exploration that revealed purposes that were implicit from the beginning but which Ann could not have admitted to at that time, if she could have seen them. I ask where she might want to explore next, and Ann replies that what she has been learning in the physical, emotional and social dimensions of her life lead her to want to explore its consequences for her spiritual dimension. She is interested in how the spiritual dimension of experience is embodied in the physical and the social. Recalling an early lesson in which she had
reported finding it difficult to do the reading she intended to do about the work, she
draws a parallel between spiritual practice and what I said then about reading, “It
doesn’t have to be a set aside.” She had found it impossible to make time for her
reflecting without setting it aside, but had gradually learned to spread it throughout
her day. She finds that spiritual practices seem to have just this sort of relationship
to daily life. The difficulty is in the nature of habit.

20-30 min.: We recall an earlier insight that there is no such thing as the “force of
habit,” that habit is a probability rather than a force. As Ann puts it, “at any given
moment we have the freedom to choose if we know how.” The word “habit” at root
means something that we “hold onto.” It is not that we are forced to; we just do. So
we find an expanding purpose in playing with the boundaries of habit and expanding
them into ever wider dimensions, and also, as Ann points out, to more clearly
appreciate their interplay. This leads us to another old metaphor of mine, the defini-
tion of “to concentrate” as “to make concentric,” that is, to put ever more circles
around a common centre. Thus while the obvious place to put the spiritual in one’s
attention might be at the centre, because it is most important, actually—because it is
most important—we need to place it at the edge, on the widest possible circle. What
goes at the centre is our own whole coordination as we embody the spiritual in our
daily life. At one point in this discussion Ann observes that, “fundamentally the
most important thing that I can do for my children is live my own beliefs,” and it is
clear that this is a statement about her embodiment of the spiritual dimension in the
physical and the emotional-social.

30-45 min.: Ann recalls that from her perspective the intellectual dimension has
been ever-present, though more or less prominent. She remembers having been ac-
cused of being either too intellectual or two emotional. What we have been about is
conversing beyond the very idea of the split between them. We have been exploring
the continuity of thinking and feeling. We recall a particular instance that incorpo-
rated this continuity, in which we intentionally “bought into” the idea of splits
between mental, physical and emotional, and pretended to deal with the physical as
something separate, just as a way of gaining leverage in making a change.

In the last few minutes we weave together some of the loose threads
and some purposes of my own that are emerging at this time. I raise the question of
natural conditions, and the strategy of finding ways of bringing about conditions un-
der which what I might want will come to me easily, rather than working directly to
get it. Ann finds that we have often been about just that kind of strategy. She gives
an example of how she used it on her own in the context of the internal politics of an
organization. She is working through the conditions of the whole organization and
its purposes rather than confronting a particular difficult board member. In response to my lament about the difficulty of bringing what we have been exploring together to a wider world and to larger contexts, Ann observes that, “when people have an experience of it, they see how valuable it is. I mean, it’s like it becomes ‘the pearl above price.’”

Ann has continued to occasionally come “for a patch,” has added starting her own business to her list of contexts, and continues to bring the most interesting and wide ranging set of specific intentions of any of my students.
Appendix 2c: Illustrative Sessions Considered as Learning Conversations

There are two questions about the videotaped conversations in Appendix 3 which, although addressed indirectly may still require direct attention: Are they Alexander Technique lessons? and Are they Learning Conversations?

The first question may be answered with a brief yes and no. Large portions of them, and the variety of sessions which they represent are my answer to the question, What would an Alexander Technique lesson look like if the pupil is assumed to be capable of some degree of self-organized learning? On the other hand they are not such lessons in that the skill that is the aim of the Alexander Technique is simply developed as a tool towards a different end. Indeed, as Penny found, it is in a sense the precise opposite of the Alexander Technique, though in being such they still constitute personal explorations of Alexander’s “new field of inquiry.”

The second question may be best answered by illustration. Thus I will reconsider two of the videotaped sessions, with Truman and with Miriam, explicitly with respect to this question. I have chosen Truman’s session for this reconsideration because, as he is the least skilled of my subjects, the distinct threads of the conversation are more observable. He also has a clear simple purpose of his own, which makes this session more typical than some of the others. Miriam’s session, involving as it does a learner who is more skilled in the process, represents a more “advanced” stage. It is both more clearly task focused and at the same time has clearer and more generalized learning focused elements.

On the pages that follow the left column is the same commentaries on the tape as in Appendix 2a. As in Appendix 2a, the first number in braces is the time from the beginning of the session and the second is the cumulative time on the videotape. The right column is a meta-commentary in terms of the elements of the Learning Conversation. Moments in the session which represent phases of the Personal Learning Contract, or the MA(R)4S heuristic, or of the three levels and three dialogues summarized in section 11.2 are highlighted. It should be noted that although I had the conversational aspects in mind as these sessions proceeded, they were not formally organized as “learning conversations.” There was no formal learning contract etc. Thus although I have identified events that represent various elements of the process, it may be more precise to view them as recurring themes within the conversation rather than as separate phases etc. This is of course not unusual in a learning conversation, where a given sentence may be simultaneously viewed as part of process, support and referent dialogues.

It is worth keeping in mind that the model of learning conversations is implicit in these sessions rather than being used explicitly. This is so in large part
because the sessions are structured as demonstrations of aspects of a certain way of working rather than as true "raw data." One important result of this in relation to the present task is that mapping the model onto the sessions is much more straightforward than the other way round. That is, while it is relatively easy to point to various events and say, "This is process dialogue" or "This is the second R of the MA(R)4S heuristic," it is less easy to fit the flow of the whole session into the model. The immediate question then is, what is it about the conversation that does not fit, and how is it related? As discussed in the main text, the bringing together of the dimensionality of personal meaning and the continuity of personal action in conversation requires a conversation with a kind of fractal quality in which the conversational character is repeated on varying scales. In a sense the final intent is to take the action-reflection cycle to a sort of mathematical "limit" of reflective action. But that leaves the question of the nature of this process vis-à-vis a learning conversation as such. The best answer that emerges from this consideration of these two session in particular is that the added consideration of "conditions," whether as a stage of the Personal Learning Contract bridging the Purpose and Strategy stages, or as a fourth dialogue, is the entry to a new level of Referent dialogue. In general the referent dialogue is directed toward the task of constructing a frame of reference in which the learner can evaluate performance and learning in ways not bound by the limits of their initial model, that is a frame for evaluating learning which itself incorporates the learning. These conversations, proceeding as they do on the premise that personal meaning is embodied as well as constructed, are directed in part toward the construction of a reference frame appropriate to the personal conclusions that can follow such a premise.
As with Lynne, the first six to eight minutes are taken up with Truman laying out his situation as he sees it and my framing it in the context within which the conversation will proceed. Truman volunteers to act as a classic example of “what not to do.” He is indeed a classic example, but rather of a person who cannot distinguish between ways of going about his task that are different at a fundamental level, and thus perceives his problem as a lack of will.

“I know this is good—and I don’t do it.” I am essentially setting up a logical argument. Truman recognizes the first premise, that his discomfort is the product of his way of going about the task of writing. The second premise is that his immediate difficulty is that he cannot distinguish between different ways of going about it except, or until, one begins to hurt. Thus my proposition to him that it is not “simple perversity or lack of will power; it is a lack of discrimination.”

As a bit of support dialogue and to renegotiate our general strategy, I remind Truman of what he has been able to do and what it implies for the present task. He does know how to make the changes he wants—when he isn’t writing—but seems to lose that knowledge “in the lion’s den.” He is a classic “end-gainer” but he also has real reasons for being so. How can he follow a strategy of taking the time to let his means

[We set up an over all PLC for the session, negotiating task and purpose. This is already a Spiraling from our previous “contract,” as Truman reflects and interprets the outcomes of his efforts to put the earlier strategies into play in his work situation.]

[This is an explicitly offered reconstruction of his record of his experience and a step in clarifying the purpose for this session. This is a challenge not only to his “competent robot” but also to his construction of the event of his failure. It also preframes the “Conditions” phase inserted into the Personal Learning Contract.]

[This bit of review of the previous cycle is an intersection of process, support and referent dialogues, as we establish the frame for the present process, provide support for Truman’s following a strategy of taking the time to let his belief that he is capable of meeting his task—that being to employ what he learned last time under the pressure of his work situation—and also]
be more important than his end when his end is very important?

{6/45 min.} Continuing to lay out the logic of his current way of going about things, we come to the paradoxical strategy of making his attention to his means primary and his end secondary, precisely in order to improve the quality of the end. This requires a continuing conscious choice; the old choice is the unconscious default.

{8/47 min.} Truman sees as his real problem not the act of typing but the act of “creating,” of solving creative problems having to do with his plot or characters. His embodiment of his concept of the work of creating is clearly visible as he tells the story of his concerns and reveals something of the meaning that his tension holds for him in relation to his creativity.

“...if I lose ‘this’...would that really interrupt these light bulb times?”

begin to establish a framework for evaluating his learning in this session.]

[We make explicit a meta-strategy of giving his strategy priority over his purpose in his attention. This gives the whole process a tightly spiraled shape as we change levels, sometimes moment by moment.]

[Taking explicit note of the difficulty of this continuing meta-task is a recurring thread of support dialogue.

[It is noteworthy that each time Truman puzzles about his difficulty, he tightens himself in much the same way as he does when he works on his novel. He is slightly, but observably, less so when he thinks about what he learned about not tightening— as long as it is abstracted from the task of writing.

[Truman’s account is a clear step towards the life conversation level as it reveals the relation between his evidently physical starting point and his underlying concept of what it means to be a creative person. At the task level it reveals his underlying model of the act of creating. This is also part of the Conditions phase of the PLC— I see my task as bringing these conditions of how he is “using himself” in the act of writing explicitly into the conversation.

[The ‘this’ he refers to is an important piece of vocabulary in his developing
I challenge this connection, again on “logical grounds,” that is, by making the conductive logic verbally explicit. We are talking about the psychomechanics of creating fiction. This opening to the exploration of this psycho-physical frame introduces another premise in our “argument.” The act of creative problem solving is no less physical than the act of typing, and is thus just as much a matter of coordination. And thus Truman can use the same strategy that he has previously demonstrated in regard to typing.

{11/50 min.} Truman expresses concern that his original physical symptoms seem to be returning. We engage in a bit of formal logic, drawing out the implications of the fact that they had gone away. This leads to a little “debate” about the necessity of the tension. Truman recognizes the improvements he made, and is willing to accept the possibility of bringing them into the task of creating, but has “never tasted creating and the smoothness.”

[This logical ploy is another intersection of all three dialogues. It brings us back to the tutorial level by reestablishing the task-focus, but in a way that keeps the connection to the wider level open. By reiterating the spiraled applicability of strategies Truman has already demonstrated, it also provides support so that he can persist with the process in the face of the perceived difficulty. The argument becomes a “process model” for a conversation in his wider personal language. I would almost want to regard this as part of a fourth, “conditions dialogue,” related but not identical to the process dialogue.]

[Making the logic of tense = creative explicit, construing creating as a physical act, and considering the implications of the tension having “gone away” are all process dialogue—again using a spiraling of what he has already learned to challenge his initial construction at the next level.]

[Truman’s inability to observe ‘creating’ and ‘smoothness’ together precludes his being able to Monitor his performance in relation to the dimension represented by his earlier ‘this.’ Truman re-articulates his purpose in terms of the dimensions of his self-observations and in light of what we have found about his concept of personal language for being conversant regarding psycho-physical conditions.]
This brings us back to our starting point. We might say that Truman has an unfortunate personal meaning for the concept of “creative tension.” I propose as our hypothesis the idea that the relationship to creating is the same as it was for sitting and typing; it is not the act that is the problem but his way of going about it. What he has to give up is relying on a certain associated feeling.

Truman buys the hypothesis but laments that he feels “like an alcoholic...I have testimony with my teeth and my arms, you are right—but when I’m in it, I’m—totally oblivious.” This is precisely the need for consistent conscious choice to attend to factors that may not seem related. This draws us into our formal experimentation.

By inviting him to think about a real task relating to the real novel, I am framing his real present situation as a logical argument of the kind that we have been talking through. As he thinks about his characters in their situation, I ask him to observe where he feels that. He takes this as an invitation to the present moment, an invitation to engage in a moment of real problem solving.

“creative tension.” It is a product of his reviewing our previous cycle. It is also the link between our previous tutorial conversation and our longer life conversation.

[I propose the hypothesis to frame this purpose as a learning task which we can pursue in psycho-physical terms.]

[This also illuminates the need for the ongoing conditions dialogue.]

[The experiment and report back form of this and much of what follows is based on a Truman-as-scientist model of our process.]

[Setting up the experiment with the “real situation” is an opportunity for Truman to begin to learn to monitor physical dimensions of his action in real time. For me the patterns of effort he employs in accepting the invitation]
Appendix 2c: Illustrative Sessions Considered as Learning Conversations

As Truman begins to consider his writing problem, he launches himself into the familiar physical pattern that embodies his concept of being creative. When I ask him to "notice what you are doing with your neck in order to remember," he is able to describe what he had been unaware that he was doing. I propose that what he gets from that tensing is the feeling by which he knows that he is "remembering," although it is unlikely to contribute to the effectiveness of his memory. It is essentially a challenge to his robotic assumption of what it means to engage in an act of remembering.

I briefly use my hands to engage him in a "secondary" conversation while he is verbally distracted by his explaining the nature of the problem he is working on. This helps him to move out of some of his tension before he goes back to the problem. My intent in doing this is simply to increase the contrast available as he returns to it. In the midst of his working I ask for a report of how he feels different, and he is able to tell is as much a conversational response as anything he says.

[Truman’s way of tensing to carry out this experiment illustrates the psycho-physical nature of the process we are engaged in, and the major reason why an acting and then reflecting process is not entirely adequate in this domain. After the robot challenging bit of process, my observations act as a reference frame for Truman’s evaluation and elaboration of his own observations. Also once again this is the conditions dialogue, as what Truman “does with his neck” is a part of the conditions within which he carries out what he conceives of as “remembering.” These conditions are incorporated into a wider, embodied concept of “remember” and so I repeatedly endeavour to make these connections explicit.]

[Every time I place my hands on Truman we are engaged in process dialogue. The interaction between my hands and his movement is at each moment a challenge to his kinesthetic assumptions. It also provides a reference frame for an embodied reconstruction.]
me in greater detail where he noticed the changes associated with his return to the problem. This is what I call Truman literally embodying the problem.

{21.5/60.5 min.}  I suggest that there is something in the quality of how Truman is moving as he wrestles with the problem that is the embodiment of the “problematic” quality of the problem, and further, that that quality is observable. I can see that quality in his moving. I use this observation as a basis for arguing that the idea of Truman’s psycho-physical unity has useful consequences. When he observes himself “in the middle of it now” I ask him to report how he feels different.

{23/62 min.}  If he is embodying his concept of solving a problem with that pattern of tension, then even when he engages in the “verbal tricks” designed to free up his thinking, he continues to carry that tension with him. The harder he tries, the more he does it in the old way. Truman has already demonstrated his ability to choose a more satisfactory way of moving that he found more graceful, easy etc. as long as he is not engaged in “writing a novel.” The question at this point is, “Is it necessary to not be writing a novel for three months...?” Would three seconds be enough?

[These moments are small entries into a learning-to-learn conversation as he demonstrates his gradually increasing ability to monitor and interpret dimensions of his own process. The immediate changes may seem unconscious, but the intent is not the changes themselves, but rather the contrasts which enable Truman to become conscious of the underlying distinctions.]

[This is a kinesthetic equivalent of the analyze and record phases of MA(R)^4S.]

[This is a bit of referent dialogue. As Truman monitors his action he finds himself able to be aware of differences in the psycho-physical dimensions and begins to use them to evaluate the quality. His observation that thinking about the problem “in this way” is an indication of his becoming aware of his own kinesthetically monitored model.]

[This is a bit of spiraling to a new view of some of Truman’s writing strategies. It is an early step in a psycho-physical learning-to-learn conversation, bringing new dimensions of an old strategy into his awareness.]

[We explore the potential of building a new strategy from Truman’s construc-
Thus we approach the matter of making attention to the means primary by small steps. He becomes easier just by considering this.

{26/65 min.} Truman observes that he feels freer, but then, "Of course I panic right away...and say, but David, of course it feels freer—because I'm not thinking about the problem...but then how would I get the book done?" Here we are at our starting point but from a new perspective. I point out a strategy suggested by Dewey. When faced with the problem of an habitual pattern, since anything that we might do that seems related to the problem becomes just another stimulus for the old pattern, we need to find something to do that seems initially unrelated to the problem at hand. This is what Truman has just done.

{28/67 min.} Because he has made this "unrelated" change in his way of "just sitting" he has the opportunity to go back to the problem, but as long as he makes primary the continuation of the qualities he likes in that, he will be unable to solve the problem in the old way. Before setting up the next experiment I deliberately preframe the experience with a bit of mention of "not writing" so that he can recruit what he had learned while not writing at an earlier stage in the process. Here we are in a gray zone between Conditions and Strategies, exploring the strategic quality of "non-doing." The way the "choice you know how to make" is recruited also exhibits aspects of the support dialogue.

[This is part of the referent dialogue as Truman reflects and reviews his observation in relation to his larger purpose. In a sense the key to the whole conversation is that it is what gets lost in any spiraling that we are most interested in. Thus each bit of spiraling up is followed by a conscious return to the process dialogue at the task-focused level.]

[Each little experiment that Truman performs is itself a small PLC. He takes the frame and protocol of the experiment as his purpose and strategy. The hypothesis frames anticipated outcomes in question form. As he carries out the experiment, he observes its outcome and then evaluates and reviews it in terms of the construction from which he drew the]
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fanciful dialogue with the feelings that will follow. "...the feeling will be..."

\{29.5/68.5 min.\} Back to thinking about the problem: he catches himself in the act of tightening his forearm, which suddenly doesn’t make sense to him. "Why am I tightening here? I never thought of it." Truman supposes that it is something he is "conditioned" to do. I suggest that it is a matter of meaning; the feeling of the tension means that he is working on the problem. We engage in a series of experiments and observations.

\{31/70 min.\} Throughout the last several minutes I have been "sneaking in" bits of work with my hands, and Truman has been getting generally more and more easy in his sitting. Having noted the connection between the meaning of the tension in his forearm, I introduce the idea of multiple dimensions of meaning for the feeling of tension, or its absence. Ordinarily I would do this by asking questions to elicit what a person might find in their experience of their arm, but in this case I have put it into a multiple-choice form, noting some hypothesis. This review leads to the framing of a new hypothesis and a new experiment—the next PLC. These experimental cycles may be as brief as a few seconds, and although they are often non-verbal and internal, they are nonetheless observable. One of the things that I must keep constantly in mind is that it is the “meaningfulness” that I observe and not any particular meaning.]

[Truman discovers himself doing something for which his model of his own action cannot account. A robot has been challenged and he finds himself in the trough and in need of new dimensions by which to make sense of what he is doing.]

[This manual process dialogue may appear to be a matter of eliciting unconscious change in Truman’s way of sitting, but his responses—movement and verbal—indicate that he is increasingly aware of the dimensionality of these changes.]
kinds of things it might mean and eliciting only Truman’s assent to each. At a verbal level I am being directive rather than overtly conversational, but the words I suggest are again mere labels. In order for Truman to assent, or not, he must seek a dimension of meaning in his experience of his own arm that corresponds to each label. Both the seeking and the finding of such dimensions are expressed in observable, though extremely subtle, effects on the quality of his moving. As my suggestions derive from my observation of these effects, I would claim that at this point Truman and I are engaged in a real, conductive, conversation.

{32.5/71.5 min.} Based on this experience of finding many meanings for the freer feeling in his arm besides only “not making enough effort to solve the problem,” we initiate a new experiment. Truman catches himself beginning to tighten his neck, and makes a fresh choice to stay with his original priority. I make this issue of holding to his priority decision explicit, especially the aspect that he is free to go back to doing it his old way in a moment if he wishes. This is done for two reasons; first it is in keeping with the “experimental laboratory demonstration” character of our interaction. It is like the sort of experiment students perform in science labs in which the format and the instructions for how to do the experiment are

[This conductive conversation is process dialogue, the equivalent of eliciting and talk-back of a construct grid. Truman is elaborating a higher dimensional space in which to conduct his next experiment (that is, his next micro-PLC) and a non-verbal personal language in which to reflect on it. His experience of the ‘this’ referred to back in minute 8 now has a more highly dimensional meaning.]

[The experiment is based on a paradoxical strategy, the anticipated outcome of which is the impossibility of the carrying out the old strategy. In this situation there can be great value in anticipating the failure of the strategy as an outcome—and even consenting to the failure. So this is both process and support. By reassuring his robot by granting it equal status he is supported in the open space where he does not know how the experiment will turn out.]
given. It is unlike many of them in that these are real experiments whose outcomes are unknown until they are performed. Secondly, making the reversibility explicit opens a working space in which, because any outcome is acceptable, true experimentation is possible. The actual experiment is engaged “hands on” in order to minimize losses in translation.

{35.5/74.5 min.} Truman reports a “floatingness” in his neck. I bring this physical observation back to the wider context by asking if there is anything like this “floatingness” in the problem when considered from where he is now. He decides to “get back into it” and tightens slightly as he begins to do that. With my hands I remind him not to get back into it, but to consider it from the perspective of his new choice. We engage in several very small cycles of guided experimentation. He finds that he can mutter his way through a bit of the problem with a varying degree of attention to that new choice. He wonders if moving his neck helps him to keep the freedom. My reply, working with my hands, is yes, in the sense that it “helps you to know what kind of quality that movement has, and that makes the choice explicit.” It becomes a concrete example of the chosen quality which one might seek to find in one’s torso, or arm, or in the problem.

[Each of these experiments is a PLC, freshly negotiated and carried out. The reviewed outcomes are cycled into the next one at the same task level and also into the somewhat less explicit higher levels of the conversation. Much of the more visible parts of those levels occurred in later cycles over several months after the taped session.]

[This “floatingness” becomes a pole of a new dimension along which Truman decides to reconstruct his experience of being “in the middle of it.” He tightens as he begins, however, showing that the old robot is still at work. What follows is a series of close conversational cycles in which the entire MA(R)S process is repeated on the scale of seconds. This requires threads of support and referent dialogue to be woven in as well. This is largely why both the manual and verbal channels must be in play at once.]

[The product of this series is an elaboration of a dimension of meaning with which Truman can make choices about his quality of movement in the act of thinking that he could not make earlier.]
[This is one of the points at which the fundamental limitation of a written account such as this—or even of a viewing of a videotape—is most stark. Even if he could clearly label this dimension for verbal purposes, it would be merely that, a label. The dimension itself, the distinction within the dynamic qualities of his action, is however, something which I am observing and interacting with in conversation. A fair—and possibly vital—question could be asked about the perceptual dimensions in my own experience by which I maintain that interactive observation. There are two very general qualities in both the visual and manual channels: a degree of dynamic complexity or dimensionality in the mathematical sense used in chaos theory—and related to what Truman feels as “smoothness,” and a degree of “integratedness”—a global correlation of the functioning of parts. As a scientist, I would find a more detailed elaboration of these into a set of dimensions of general perceptual meanings applicable across individuals to be of great interest, but as a teacher, I wish to resist the temptation to impose any such general categories on any of the learners with whom I work. I prefer to seek the dimensions of “conversational meaning” afresh each time in conversation.]
lem on his own. He looks as if he is in rather unfamiliar territory, but he is willing to persist with his experiment. There is also a quite noticeable difference in his sitting now compared with the beginning of the session. His "report of findings" is quite interesting. He went along for a while, then felt a moment of "panic" during which he thought that although this all sounded good to him, he would have to "go back to the real world" of his own desk. He decided to bring his attention back to himself, however, and made a fresh choice. He then brought the problem back, and shortly after that a "new angle" that he hadn't seen before "wafted in." I follow his observations with a review of the process from my viewpoint as a sort of public validation of his, again part of a support dialogue and a post-framing of what Truman has accomplished in a way that may point toward his future work.

{47/86 min.} As we preframe the discipline of his future practice on his own, I work a bit more with my hands in the interest of his leaving the session with a clear impression of the quality that he has found.

{50/89 min.} Truman finishes with a new purpose: "To do this and come back to you with things that I found that are blocking it." [He subsequently did this and has continued to progress through a series of little "crises" like this one.]

[Truman demonstrates and tests what he has learned by taking on his own experiment. The MA(R)4S cycle is clearly in evidence. As he monitors what happens as he gets back into his writing problem he finds that he has improved. But when he begins to analyze these results in relation to his model of writing, he feels a "panic" at the prospect of actually attempting it at work. As he reflects on this, however, reviewing it in relation to what he has been practicing in this session, he decides to make a fresh start. He brings the problem back to the foreground and goes back to monitoring, this time from the perspective of the new learning. He is rewarded with the new experience of a "new angle," a potential solution to his problem, "just wafting in."]

[This is referent dialogue, both verbal and manual. The specific intention of the manual channel is simply to bring the psycho-physical conditions explicitly into the conversation once again as Truman frames his future strategies.]

[Thus he initiates the next major PLC.]
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{51/90 min.} We conclude with my question about Truman’s impressions of this whole process in relation to the question of discrimination with which we began, and his concern about his ability to continue the process on his own in his own world.

[This is our final review and points towards an implied next spiral of the conversation.]
Miriam begins directly with a straightforward purpose. She had practiced a long time the previous night and feels as if somehow she had “never put [the] violin down.” So she says, “I can kind of do what I want to do, but not quite. There is something in my way.” My perspective is that her kinesthetic ideas are mixed in with her musical ideas. This conversation is about how to separate them out in order to find a wider range of choice of ways of going about playing. I remind Miriam that she already has skill at attending to her playing within a context of her coordination, at making her coordination primary and the playing secondary as she plays. She recognizes that she has reversed this order and is thus stuck with a “package” of interfering tensions.

As she considers this choice of priority the quality of her standing is already noticeably different.

Taken as a whole this session is a single task-focused learning conversation. Our negotiation of purpose is straightforward as Miriam has a specific purpose—to finally “put down the violin.” This is nested in an ongoing general purpose of learning to gradually have less of the “something in my way” so that she can more easily do what she wants to do musically.

The specific learning task is to become more skilled as distinguishing the kinesthetic and motor dimensions from the musical in order to enhance her range of choice. This leads us directly to the Conditions phase of our modified PLC. Attention to the conditions within which a “robot” operates is always a challenge to it. Thus this conditions phase is closely related to the process dialogue. My reminder of what Miriam “already knows” is both a bit of support dialogue and a recruiting of her past learning into the present process.

This consideration of conditions is already a Strategic step that leads to an immediate Outcome. This is thus a cycle of learning conversation the next step of which is to elaborate the dimensions of the criteria by which she evaluates the outcome. This process differs from the usual form of PLC in that bringing the conditions phase explicitly into the process—especially regarding the psycho-physical condi-
I ask her to play with that difference. She observes that her playing is "some better." So I ask what, in particular, is better, and what she means by "some." She replies that there was "less interference between my musical idea and what's actually coming out," but that her hands are still cold and she can still feel that though she can do what she needs to, "something is not good." This something is a "something in general" which seems to related to her having played, a something extra that, since she didn't really need it, was all too easy to retain.

{4.5/97.5 min.} The first experiment begins with my request that she find a quality in her balance as she stands which is the quality she wants in her playing, and also a quality which is what she had felt as restrictiveness in her playing before. She finds these qualities and reports that they are "the opposite ends of the same things." She has found a clear example of a dimension in her experience, with these two qualities defining points on a "line."

[This request brings the continuity of meaning across different domains into the conversation as she carries out the experiment. Miriam establishes in her experience a dimension of meaning independent of the particular domain (kinesthetic, auditory etc.). She finds in her Monitored experience dimensions of a Reconstruction beyond an implicit model in which movement, sound etc. are separate categories of meaning.]

[Minam, knows what I am referring to by this "something in general." It is a bit of conversational meaning deriving from our prior sessions.]

[The Strategy of the whole session itself is to engage in a progressive series of experimental cycles. I propose strategies relating to conditions and process and as she proceeds Miriam gets better at observing, reporting and applying her experimental results (these could as well be labeled Monitoring, Recording and Recycling).]
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Her purpose now can be expressed as to move farther in one direction on that line, toward something which is more like one quality and less like the other. The experiment is to think of giving consent to moving along that line as an act, and using what she knows about allowing a change in how her head and body move as the way that act is to be performed. Her Alexander-based skill thus provides a means toward a specific, dimensional end. Miriam does this and reports that she does seem to have more of the quality she wants.

{6.5/99.5 min.} She repeats the procedure, using moving in that way as the initiation of her bow coming up. This movement is different, but she wants to reserve judgment until she plays. But that is the "end." I review what she has just done. The test of it, in her terms, will be whether she can continue it as she plays. The hypothesis is that if she does, that quality will be in the music as well.

{8/101 min.} The full experiment at this point is for Miriam to think about the musical version of that same quality, how she will know when she hears it—this is the same dimensional end in an extended context—to repeat the procedure of finding the quality she wants in her standing and purpose in dimensional terms. Throughout our conversation we are generally following the phases of a PLC while spinning off subtasks of varying scales. This is necessary to sustain the continuity of the conversation with the embodied conditions in which Miriam pursues her purpose.

[Each of these little experiments is a complete PLC in which Miriam frames her purpose and strategy in the protocol of the experiment, performs it in anticipation of an outcome in terms of her experimental hypothesis, and then reflects on the relation between her purpose and what she actually observes happening. In each case we are engaged in process dialogue based on our combined observation—I can see her monitoring her performance and outcomes. Elements of support are supplied by my comments and questions (questions can often be supportive in their implied validation of the questionee's observations), and sometimes by my hands.]

[This change then provides the new conditions for a new performance.]

[This experiment is one of the clearest the instances of a characteristic small scale conversational structure in the session. This conductive conversation is a curious synthesis of a PLC and "non-doing" approach to strategy. It]
then using that to initiate the movement of bringing her bow up, and *then* to simply think of the playing as the continuation of the same movement. I leave observation of the changes in her standing and her playing for the viewer.

{9/102 min.} She is “greedy.” She wants it all. The difficulty when she plays this game by herself is that she wants “all of it right away.” This leads us to a discussion of “altogether, one after the other” in relation to the various “shortcuts” that we always seem to be seeking. (We did come to a more satisfying resolution of this discussion after the session.)

But I bring the question back to the playing, and specifically how it was less than satisfying, that is, if she played again and it was “better,” how would it be specifically different. I am seeking a dimension of her meaning of better.

involves a clear, dimensional specification of purpose and outcome, but in a sense explicitly sets aside the question of strategy (although of course, the whole of it is strategic at a larger scale). This evaluative reconstruction of the musical task in terms of the shared dimension is a basis for consenting to play in a way that she “does not know.” She does not “do” anything to produce the sound quality she wants but relies on the continuity of the whole phenomenon from which it was abstracted.]

[This is a bit of the learning-to-learn level conversation about how Miriam applies these ideas in practice on her own. Our principle that says we can have it all, if we can “ask for it in the right order” relates to Miriam’s desire to get beyond the specific dimensions in practice—and back to the continuity of whole performance. It is a matter of finding a conception of the whole task which is sufficiently elaborate.]

[We come back to the task-focused process dialogue. The intent of the cycle is to find more dimensions in Miriam’s idea of what she wants to learn. It is a straightforward Reconstruction within the MA(R)4S model reflected back onto the Purpose phase of the PLC.]
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{12/105 min.} Miriam finds the difference most clearly in a quality in her bow changes and in a musical quality she calls “depth.” I check to be sure that the label clearly refers to a perceptual dimension in the sound. Miriam notes that “in physical terms...I haven’t brought my legs along.” We agree that bringing them along would be another expression of more “depth.”

This is the idea of the qualitative unity of experience. Her musical idea, her auditory idea and her kinesthetic idea are distinct categories, but the same quality is present in each, and is indeed what knits them together into a whole experience. It is thus an attention to that single unifying quality by which she can organize her action in such a way that she can rely on the coordination of herself as a whole system. This idea leads to the next experiment, which begins, as many do, with “think about...”

{14/107 min.} “Think about “more depth”...what is it...in the movement at the point of each bow change that would count as more depth.”

The experiment is to repeat what she has done, with that thought in mind. The whole quality of how she brings her violin up is quite different—as is her playing.

[As Miriam monitors her playing, each bow change is an event which reveals significant differences in quality in contrast with other moments. The purpose of the check is to make explicit that the label is just a label and that it refers to a clear musical dimension in her experience. Her observation of the difference “in physical terms” can then (in personal construct theory terms) be brought into the range of convenience of the depth construct.]

[This is the central issue of learning in an embodied way. The conversation at this point is explicitly “conductive” as it is focused on the continuity of the psycho-physical conditions, and thus the qualitative unity of the experience. The dimension “depth” then becomes, in Radley’s term, a vestibule through which Miriam experiences herself in the act of playing. This is again “conditions dialogue” and is a central instance of how this dialogue leads to a psycho-physical referent dialogue.]

[In this little Recycling Miriam’s monitoring, specifically focused through the dimension of “depth” constitutes something of a personal paradigm shift, a different kind of observing.]

[Miriam runs the experience “through the model.” As she does my experience of her and her music takes on a quality for which “depth” seems an appropriate label. I point it out in]
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{17/110 min.} The “hire any musician in the world” game: I claim that the musical intention comes in at two points, before the act of playing—so there is a clear idea of what you want—and in the act of playing, at the very end. Having this intention clear, and not entangled with kinesthetic preconceptions about how to produce it, is a matter of abstraction. My little strategic game for being clear in this is to imagine hiring any musician in the world to play the piece, as many times as needed until they get it just the way you want it, and think only about how you will know when they have, to think in purely musical, auditory etc. terms. Miriam plays this game, builds her musical idea and then sets it aside and attends to her coordination in the act of playing.
I use my hands in the conversation to bring the movement dimensions clearly to the foreground of Miriam’s attention.

order to bring that conversational meaning into Miriam’s awareness. The recognition is both support and a dimension of her evaluation criteria.]

[This game is presented as a process model of the relation between the dimensionality of artistic intention and the continuity of performance as a psycho-physically whole action. I offer the model, which Miriam has played with before, not to impose any dimensions of mine, but as a useful frame for her use of her own.]

[I have not done so until this point because Miriam has been conversing quite well without them, and in order to steer clear of a characteristic source of confusion. Because we are in general relatively unaware of the dimensions of our experience that the manual channel of the conversation is about, we tend to have the sensory im-
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19.5/112.5 min. Miriam plays with this idea and finds that the music had some parts of what she wanted, and not others. Of the important parts, she "missed one." The next cycle is to think about that one missing part, that is, about the one way in which the playing would be different with that part in place. She is also aware of the aspect of her general movement that seemed to be interfering with it. So I suggest playing with the intention of moving in such a way as to allow that particular musical dimension to be more the way she wants it, while giving up any preconception of how that will happen.

pression that events that follow someone's hands being on us were caused by them. Miriam has become conversant enough for this manual conversation to proceed in a more balanced and fluent manner than was possible with Truman, for example. At this point then, my hands become just an alternate way of asking my questions about quality.

[Miriam has unconscious ideas about what she must do with her back, legs etc. in order to stand, or hold up her violin, which are in conflict with the results she wants. The dimensional questions I ask with my hands at this point are the simplest way to challenge the construction of these ideas.]

This is another formal bit of process dialogue. Attending to the dimensions of her own observation, Miriam is now monitoring her performance in terms of a more precise and elaborate frame of reference. She is evaluating the event in terms of a reconstructed concept of her task. By focusing on the single dimension represented by the part she "missed," a different sort of "all else being equal," she is able to recycle back into her performance. The final bit of process, in which she plays with the continuity in a sense, "model free," her own attention to the key quality becomes itself a condition within which she acts.
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{21/114 min.} Beginning by “finding” the quality she wants in her mid-back and her legs, Miriam performs one more experimental cycle. I continue conversing with my hands while she plays in order to help keep all of the dimensions present. With my hands on her knees I can feel when she is moving with the quality that she wants, though I do not know in any prior sense what that quality is. I only find out in conversation, but that conversation also gives Miriam a reference frame in which she can make specific choices.

I use my hands again to insure that the conversation is conductive, saying as I do, “you want that quality right here,” as an invitation to Miriam to clearly “find” her key dimension in that location in order to expand her conscious perception of it to other domains. It is a microscopic review of the entire process. Miriam’s knee is merely a convenient reference point in her monitoring of the process. (Part of what makes it convenient is that her idea of how she must use her knee in standing to play is connected to her underlying model of her own functioning, embodied in her standing. We are not directly addressing the construction of that model in this conversation, however.)

{24/117 min.} We finish by observing how Miriam is in relation to her observations at the beginning. She has succeeded in expressing her musical intention and at the same time [This is in a sense a bit of unneeded process dialogue. Miriam has shown herself to be quite able to guide herself through the process at this level. The point at which the entire psycho-physical thread of the conversation which I am calling the conditions dialogue maps onto the learning conversation model is in the referent dialogue. Because Miriam can carry the process as well as she can, my intention here is to bring that process to a finer level of perceptual detail.]

Considering the entire session as a single learning conversation in which the first part negotiated Purpose and the main body was a series of conver-
her physical restrictions are no longer present. Her playing, both the qualities we can hear from the violin and those we can see in her movement as she plays, are markedly different from what was observable at the beginning of the session.

sational cycles representing Strategy and Outcome stages of a PLC, this is the final Review stage. The questions that this very brief section needs to answer are:

Has Miriam learned what she set out to learn? I.e. has she met her Purpose?

Has she become more skilled at navigating the process?

Is she more self-organized?

At the learning-to-learn level there is a question of her appreciation of the relationship between her work and my assistance—what she can do on her own and how she can recruit my aid when she wants it.

In both her personal terms and mine all of these questions are answered in the affirmative. (This conclusion was later verified by the way in which the learning in this session was spiraled into later sessions relating to quite subtle tasks.)
APPENDIX 3: ILLUSTRATIVE SESSIONS: THE TAPES

3a: Videotape of Sessions [189 min.]

3b: Audiotape of Five Year Retrospective Interview [90 min.]