Proceedings of the Vitalism Conference

The LifeSource Octagon, A Center for Infinite Thinking Presents ***Vital Conversations***

Vis Medicatrix Naturae:
Stewardship of the Source of Healing

Exploring the New Vitalism
April 17-18, 2009

Prelude to a Conversation

Welcome to the Proceedings document of the inaugural Vital Conversation of the LifeSource Octagon: A Center for Infinite Thinking.

The subject of this event was developed out of an awareness of the need to have a new, academically-driven effort that would examine vitalism. The perception of the need for this effort arose from a variety of needs and influences: some provincial to the interests of specific professions, some more connected to the awareness of a hunger at a different level, where policy-makers hunger for more complete and sustainable models of health and wellness.

The concept of vitalism is ancient, based on observational phenomena, a cosmology that served humankind well until the advent of mechanistic and reductionistic considerations raised questions that it was not prepared to answer. The advent of quantum mechanics theories provided new perspectives that, in an intellectually surprising turn of events, served notice of the limits of mechanistic models and re-invigorated efforts to re-examine and reconsider the tenets of vitalism.

Because of, or in spite of, the dominance of mechanistic/reductionistic model thinking during the explosion of scientific knowledge in the twentieth century, a number of healing professions held fast to tenets of health and healing that acknowledged the contribution of mechanistic thinking without surrendering elemental, inviolate truths.

Rather than being derivatives of randomized, placebo-controlled double blinded clinical trials, these truths were more elemental, more archetypal, more sensate in nature: based on millennia of thoughtful observations, relational loci of healing, and an intuitive respect for the ineffable elements of life and of living. These truths acknowledged the evident and commanding presence of a power and force that, while perhaps inarticulate in scientific terms, spoke unending, eloquent volumes through the observable and replicable mysteries of living processes.

There is a powerful temptation to name this force, this presence. The act of naming it serves the interests of many, but not all. Vitalism is neither cult, nor religion, nor the province of any single profession or group. It is, rather, in perhaps its purest form, the most inclusive method of acknowledgement: acknowledgement of the presence of information and associated data; acknowledgement of the presence of order and presumptive intelligence, and acknowledgement of mystery. Any single element, extracted from the whole, is perhaps satisfying in a temporal way—but incomplete. Taken together, they offer a collective departure point for a journey of exploration and challenge.

I invite you to both accept the challenge of, and the necessity to surrender to, this journey. If the destination is preordained, there is nothing new to be learned.

With warmth and respect,

Stephen Bolles
Conference coordinator

Inception

Modern Vitalism and Health Care
A Symposium Concept Proposal
Submitted by
Rob Scott, PhD and David Koch DC, Co-Chairs

Purpose: To provide a venue for academic dialogue regarding the current status of modern vitalistic philosophy in health care and the generation of "white papers" on the these vitalistic principles as they apply to health.

Background: Vitalism in a classical context of a "Life Force," the belief that living things are given life by some entity-entelechy-which distinguishes living from nonliving things, has all but been discarded by conventional science since the 19th century. Monica Greco (2005) in her paper "On the Vitality of Vitalism" noted that many authors when discussing Vitalism fail to acknowledge a "polyvalence" that exists with the term. Traditionally, vitalism involves a metaphysical, or ontological, context and is often presented in direct opposition to materialism. While this is the classical definition of turn-of the century vitalism, it reliance is an oversimplification and represents a lack of appreciation for the variety of meaning. Benton (1974) constructed a typology of vitalism as applied to biological sciences in which these differences were clearly identified and from which he concluded that "the issues which divided vitalists from one another (i.e. one vitalistic theory from the next) can be shown to be more significant than those that divided vitalists from non-vitalists.

Indeed, in some cases the sole issue separating a vitalist from non-vitalists was little more than a terminological dispute." Benton's typology included a three dimensional assessment of vitalistic theory. The first dimension differentiated theories based upon what he called "epistemological skepticism", or "metaphysical daring." This included essentially two types of vitalistic theories – phenomenalist and realist vitalists. The phenomenalist utilized concepts of "vital power" or "vital property" in their biological theories but the vital power was envisioned as the result of perceived relationships through the observation of phenomena. Realist vitalists by contrast actually hypothesized the existence of a non-physico-chemical entity from which the physical observations were the result and corresponded more with classical vitalist perspective. Benton's second dimension contained three categories. Theories were categorized based upon the characterization for the "purpose" of the vital power.

In teleological vitalism the vital power was proposed to be operating in pursuit of a desired outcome or objective. Nomological vitalism characterized vital powers that operated according to laws discoverable by observation and experiment yet could not be reducible to physical sciences. Finally, non-nomological forms of vitalism included theories were the vital powers were variable and not subjected to any law-like properties. Clearly, in Benton's (and others) typology the Vitalism lines fall along explanations of a "vital power" that are either amenable to the physical or dependent upon a non-physico-chemical entity. This distinction is also evident in the work of Wuketits (1989) who proposes two broad distinctions for the concept of Vitalism. One is the classical animist and the other a naturalist approach. The former distinction is explicitly metaphysical, dependent upon a non-physico-chemical entelechy, while the later distinction suggests organic natural laws that may transgress the range of physical explanation. A naturalist perspective is also espoused in the discussion of organismic biology and cybernetics that both endorse a system theories approach in explaining the organizational relationship of the physical world.

Today, several health care approaches traditionally classified as Complimentary or Alternative Medicine (CAM) claim to be based upon "vitalistic philosophy".

These approaches to health collectively center on the philosophy of "Vis Medicatrix Naturae" – the healing power of nature, and the principles associated with each approach fall into several of the vitalistic definitions listed above. Each approach possesses similarities to the others, yet each also has distinct differences. All, however, possess the same challenge of validating its vitalistic philosophy in an era of scientific dominance and scrutiny. Additionally, trends are emerging with in conventional allopathic medicine towards more holistic approaches to health, which, in and of themselves, cross perilously into "vitalistic" territory.

The ever expanding understanding of science and recent insights deriving from complexity theory especially emergent properties (systems behaviors which cannot be predicted from the properties of the component parts alone) suggests the time may warrant revisiting the "vitalistic" connection to the human experience and its relationship to health. This symposium is intended to provide a venue for academic dialogue on the modern "vitalistic" philosophy as it relates to health and health care.

Fit to Mission:
The symposium is congruent with the Life University's mission. An integral portion of Life 's mission states " To fulfill this mission, the University, an institution based on contemporary vitalistic principles, offers high quality, integrative programs in chiropractic, biology, nutrition, sports health science, general studies and business." Further more, Life's strategic initiative is to "Become the preeminent performance-centered, vitalistic health care institution in the world". Therefore, in an effort to fulfill this mission Life University must be the visible leader in the academic discussion of vitalistic health care. This symposium (and subsequent future symposia) will provide the initial avenue toward achieving this recognition.

Core Proficiencies:
As stated in Life's Mission the "University educates its student in a set of core life proficiencies,…." The proposed symposium fulfills several of the Universities core proficiencies, specifically:

- Philosophy of Human Existence and Health Care Policy
- Belief Systems and Performance
- Contemporary Scientific Paradigms
- Learning Theory/Critical Thinking

Program Format:
The day-long program is designed in the format of a symposium, a formal meeting where several invited specialists deliver short addresses on a topic, or related topics followed by a free interchange of ideas. The symposium is desirable as it provides the format that is in line with the Octagon™, a forum for the exchange of ideas that permits the general public to observe.

Program Objective:
The symposium will provide a dialogue for contemporary vitalistic philosophy in health care. Academicians representing provider groups sharing vitalistic philosophies and academics from the discipline of philosophy will provide overviews of the metaphysical models and constructs that comprise their discipline or respective provider group philosophy as they relate to Vis Medicatrix Naturae.

Over the course of eight hours approximately six (6) speakers will provide presentations on the following areas:

- General metaphysical constructs of Classical and Contemporary Vitalism
- Vitalistic Philosophy of Homeopathy
- Vitalistic Philosophy of Naturopathy
- Vitalistic Philosophy of Acupuncture/TCM
- Vitalistic Philosophy of Ayurveda
- Vitalistic Philosophy of Chiropractic

Generative Questions:
To maintain focus of discussion possible generative questions that speakers will be asked to address will include the following:

Provide an overview of Classical/Contemporary Vitalism and discuss how the philosophical construct is applicable to Vis Medicatrix Naturae.
Is the philosophical construct as described viable and if so does it provide relevance in today's expanding knowledge of science and how? Others?

Target Audience for Symposium:
The potential groups/professions that would be a target audience for this symposium include the following:
Health care providers especially those representing the specific professions invited.

Health care educators representing the specific professions. In the US (and Canada) this includes 16 chiropractic colleges, 6 naturopathic colleges, 48 Acupuncture/TCM colleges, 4 homeopathic colleges, 4 Ayurveda colleges.

Health care educators from conventional backgrounds interested in the "holistic health care".

Health care educators who are interested in integrative approaches to health care.

Students from respective institutions and disciplines
Interested public and/or lay persons.

Symposium Product/Outcome:
In the weeks following the conclusion of the symposium it would be the intention to provide the following work products for distribution/sale:

White Paper on the Modern Application of Vitalistic Philosophy In Health. This document could be used as seed document to address the university's position on vitalism. Additionally, the paper may have merit as a seed document for a collective of professions on vitalism.

Proceedings will be published and available for sale to any interested parties. Complementary copies will be provided to invited speakers and select attendees.

Design Principles for a Meaningful Conversation

While it might be comparatively easy for any participating profession to do its own version of an examination of vitalism, there are, arguably, a number of reasons to bring members of a naturalistic, vitalistic sorority/fraternity together to accomplish this collectively.

Life University's commitment to these reasons formed a set of design principles that informed the construction of the faculty, the event itself, and an acceptance of the open-ended outcomes. These design principles included:

A COMMITMENT TO PLURALISM. Professions who are often marketplace and legislative competitors will find it hard to identify areas of common interests, practices and beliefs unless there is a kind of 'safe container' established for them to be able to espouse their profession-specific tenets—and listen with the same enthusiasm to others'.

A COMMITMENT TO ACADEMIC INTEGRITY. Professions who have struggled against the efforts of other, dominant professional cultures for any number of years (or centuries) to establish a viable, sustainable platform for development, growth and maturity have little reason to open their processes to the rigor of inquiry and academically-based challenge. Yet it is difficult to challenge the validity of mechanistic/reductionistic approaches (who have exposed themselves to this discipline) if we are not willing to be accountable to similar standards—and in effect, accept through this process similar stimuli for change and maturation.

A COMMITMENT TO PROCESS, NOT OUTCOME. It is impossible to engineer a process that embodies 'integrity' if the outcome of the process is pre-ordained; the process can determine the quality of what it 'holds,' but the process itself must be free enough to produce an outcome that is, in a sense, something of a surprise. In contrast, if the end result is pre-ordained, the process must be reverse-engineered to accomplish that result, and its accomplishment will be largely lifeless—in a word, not vitalistic.

These considerations informed the development of the following presentations and discussions.

For more information about Life University's LifeSource Octagon, please contact us at: Octagon@life.edu

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Guy Riekeman, DC Welcome and Opening Remarks

I m going to suggest to you that perhaps it s time for a different conversation. And I believe that conversation has to begin with the basic question that ultimately all systems need to answer, and that is what is the nature of a human being? Are we a physical being only, predetermined? An expression of our genetic code without any input from ourselves and our environment, having no influence on the outcomes of our health and well-being? Or are we in fact self-developing, self-learning, self-maintaining, self-healing mechanisms?

Albert Camus said that, "Great ideas come into the world as gently as doves." He said that, "If we listen attentively we might hear above the roar of empires and nations, the faint fluttering of the wings of gentle stirring of life, of hope." He said that some people believe hope lies in a nation; others in a man. He said that, "I believe rather that it is revived and awakened in millions of solitary individuals, whose deeds every day negate frontiers and the crudest implications of history." As a result, Camus said, "There shines forth fleetingly the ever threatened proof that each and every one of us, based on the foundation of our own joy and suffering, is building for all of humanity."

I have no doubt that while Camus knew nothing about what was going to occur today that his words are certainly at the essence of this conversation today. We have a world of increasing technology, but unfortunately too often there is not a corresponding change in the philosophy of human existence. We have found ways to create a technology that can destroy the planet, yet there has not been a concurrent and congruent other conversation about whether or not we can have tolerance and respect for how people can live together and work together on this planet. We've had an increase in technology in our health care system, and yet we still look at the nature of health and human existence as just being physical, trying to survive through a number of decades with as few diseases as possible. When you look at closed-loop systems like the cardiovascular system, you trace a drop of blood from a place in the heart, it will ultimately wind up back in that place in the heart. We know that in these closed loop systems any positive input into the system has a positive influence on the whole system, while any negative input into the system has a negative influence throughout the entire system. When we look at these closed loop systems and we see them on a sociological level, for instance, or on a political level, such as India and Pakistan being at war with each other, India decides to explode a nuclear weapon to secure their borders with Pakistan, but instead of securing their borders, they create fear in Pakistan, and they have to then explode their own nuclear weapon. (3:34) And the end product within this closed loop system is that we've made our world less safe. I guess what we can draw from that is that you can't get rid of war by creating a bigger war machine than the other guy.

You can't get rid of hate by hating the people who hate. And you can't get rid of disease simply by treating disease—in fact, once you're in that paradigm, you'll find that you'll create more of those issues. You'll find that if you want to get rid of war, you have to create a new conversation, a new dialogue about peace. If you want to get rid of hate, someone needs to create a dialogue about love. And if you want to get rid of disease, someone needs to create a new dialogue about health. And it happens to be my belief that if you are working in a paradigm about peace, war doesn't exist in that paradigm. If you're working in a paradigm of love, hate doesn't exist




in the paradigm. If you're working in a paradigm of health, disease isn't even a necessary conversation.

And so if we look at the issues that are facing us on the planet today: obesity, autism, and others, we're having these philosophical and national health care conversations inside the same paradigm, and the outcome is that we have to have more drugs, more technology, which is the same system. And the only thing Washington seems to be able to muster up for the conversation are things about access and cost: how do we take a system that's not working and get more people into it for less money? I'm going to suggest to you that perhaps it's time for a different conversation. And I believe that conversation has to begin with the basic question that ultimately all systems need to answer, and that is what is the nature of a human being? Are we a physical being only, predetermined? An expression of our genetic code without any input from ourselves and our environment, having no influence on the outcomes of our health and well-being? Or are we in fact self-developing, self-learning, self-maintaining, self-healing mechanisms? Have we been programmed, if you will, with the information to be well, as long as we get rid of the interferences that are stopping us from utilizing that expression?

So the goal of the LifeSource Octagon is very simple: to bring people together to have the world's greatest conversations around eight core values or proficiencies, including the one we are focusing on this weekend: the philosophy of human existence and how that impacts health care policy. So I'd like to welcome a number of people here today. First, the Board of Trustees of Life University; I know we have a number of them present. Would those who are here today please stand? I know some are here and some are on the road. Secondly I'd like to extend a special appreciation to Dr. Rob Scott and Dr. David Koch, who, when we came to them and sat down and said, 'this is the kind of conversation we would like to have,' created the incredible list of thinkers whom we have this weekend. And then, of course, the person who logistically and intellectually put this all together, Stephen Bolles.

And then to all the attendees: when we conceived the LifeSource Octagon, the first thing we did was to conceive the building. Disney felt that buildings, environments create behavior, and we wanted a model of what this would look like, even though it might take a while for the building to be actualized. Of course, you can have conversations without the building, but the building gave us a framework, and we envisioned a place where people would sit around a table and think great thoughts—have great conversations. But we always thought it would be nice to 'eavesdrop' on those conversations, so we created an auditorium that has about 300-350 seats, so that people with interests in these conversations could sit and observe them. So it is with today; this was never conceived to be an auditorium of 2,000 people. That's a seminar, that's a motivational talk. But this is an opportunity for us to 'eavesdrop' on a conversation between nine incredible thinkers about the philosophy of human existence and how it impacts humanity. So I'd like to express gratitude and appreciation from my own standpoint, gratitude for those of you who are sitting here, stimulated to come hear this conversation and attend this conference. And then of course, and you'll be introduced to them along the way, to the incredible people who are here to fulfill the positioning statement of the LifeSource Octagon: A Center for Infinite Thinking. So today we have nine infinite thinkers, who have come so that we could listen in to their conversations. So please participate fully this weekend; it's an intimate setting, and I think that intimate setting is absolutely what we need.

So as Camus said, and as I so aptly looked back over my father's career, as chiropractor helping humanity, long before there was recognition or ideas like this, when Camus said that these great ideas not only come into the world as gently as doves, but they are in fact they are built upon not an individual or a nation, but on the working, the aspirations, the hopes, the dreams, the pain of disappointment of millions of people who, every day, negate frontier by their very being and thinking. And by doing that, they set a stage for humanity. So welcome to the first LifeSource Octagon Conversation. Dr. Scott, thank you very much.

Rob Scott, DC PhD Introduction to Symposim and Speakers

Can a vitalistic perspective drive change in our health care paradigm? If so, what does that new paradigm look like? What becomes the language, or taxonomy of the new paradigm? In a vitalistic paradigm what becomes the basis for health and healing? What would the clinical outcomes of the new health paradigm look like, and how would the desired outcomes affect new products and services and health care delivery?

Good morning. As the Vice President for Academic Affairs at Life University and Co-Chair for this conference, I would like to welcome you to Life and thank you for joining us today for the inaugural conference of Life University's Life Source Octagon and the first of what will be many "Vital Conversations" designed to be impactful in changing the mindset of today's healthcare system and policies.

Vitalism, the concept that all living organisms are sustained by a vital force that is both different from and greater than physical and chemical forces has a long history in health care - yet it has all but been discarded since the 19th century when the dominant influence of reductionistic thought came to bear winning out over the early 'classical vitalists", or "extreme vitalists", who premised their explanations of the vital force on the supernatural, or higher powers. Yet Bernard Haisch, author of the *God Theory*, suggests that "Somewhere between a hard core reductionist who explains all things as the sum of their parts and greets every suggestion of spirituality with a sneer, and the unquestioning faithful who receive their beliefs from the prophets and preachers, there is a group of philosophical centrists, well-intentioned, open-minded and skeptical yet eager to explore their own nature". This conference is for them – the excluded middle ground of vitalism – the philosophical centrists. Those, who like me may, or may not subscribe to a conventional religion but never the less deny the universe is a purposeless accident that came about with ingenuity so astonishing that it is simply difficult to accept as brute fact.

One striking and very relevant example of this Vitalistic ingenuity is captured in the premise shared by many health care providers - and is the premise for this conference – that of *Vis Medicatrix Naturae* - the healing power of nature. The recognition of and respect for the self-aware, self-directed, self-maintaining, self-improving and self-healing nature of life and living beings. Equally as important as the recognition for the healing power of nature, however, is the implication that such recognition has on the global health care conversation.

Dr Ian Coulter, who is participating with us this weekend, in his book *Chiropractic, A Philosophy for Alternative Health Care* argues that what should be asked is not whether a particular interpretation of vitalism is acceptable or not, but whether it leads to the solution of health problems, the generation of a research program, or a perception of health and a role for the health care provider that makes a difference in the treatment of patients. We hope that this inaugural conference will be the initial step in achieving that goal. In fact, here at Life University we are deeply committed to this conversation and feel




that there is, indeed, a legitimate role for a contemporary vitalistic perspective in health care. Given the challenges facing the health care and the health care delivery systems around the world there is a need for solutions and innovations. One of our assumptions is that more efforts to explore the qualitative side of healing may have material benefits on the quantitative side of healing – that of the delivery systems, providers and outcomes – as eluded to by Dr. Coulter.

Can, for example, a vitalistic perspective drive change in our health care paradigm? If so, what does that new paradigm look like? What becomes the language, or taxonomy of the new paradigm? In a vitalistic paradigm what becomes the basis for health and healing? What would the clinical outcomes of the new health paradigm look like, and how would the desired outcomes affect new products and services and health care delivery?

We also believe that this conversation is not the domain of any one profession and requires collective experiences characterized by pluralistic values. In fact many health care approaches have embraced the healing power of nature. In an increasingly pressured health care marketplace, an arguable position is

> The purpose of this conference is to engage the dialogue

that all provider groups have potentially important, relevant and essential portions of answers to the vexing challenges of improving the health and wellness of individuals. Some of the challenges we face fall into several basic areas of questions: What's our profession's relationship to the new paradigm's cosmology? Can we solve some of these problems better together than apart? Can we be collaborators instead of competitors? If so what do we agree on and disagree on, and equally as important, what do we do about our disagreements? Basically, can we develop a coherent and comprehensive agenda that is inclusive of diverse professional interests, yet stimulates intra-professional development, maturation of though, and yet changes the healthcare landscape?

The purpose of this conference is to engage the dialogue and begin to address some of these fundamental generative questions. It is important to stress that this is not purely a passive exchange of ideas. Our conference faculty is certainly here to discuss vitalistic perspectives and their implications, but equally as important, is what will happen tomorrow afternoon behind closed doors. It is our hope that the work product that is created as a result of these discussion will be a "white paper" that outlines some measure of a defining framework for which to advance our collective dialogue on a contemporary vitalistic perspective – this may take the form of a common agenda; legislative/research/professional goals and plans for future discussions. I also want to stress that you – the audience's participation is also strongly encouraged. Our format is somewhat unusual though. You see the primary purpose of this event was to create a "think tank" environment on the issue of vitalism,… to bring experts together to have a conversation among themselves. To that end, our faculty are here participating in the process geared to produce the work product. As such, their presentations are actually intended as an exchange of information and ideas between themselves. You, the audience, are here to observe their exchange of information and ideas. In an effort, however, to facilitate your participation and input into this process we have established a blog. As you have comments, questions, suggestions or ideas you are invited to post your thoughts to the blog either using your own personal lab top, or blackberry, or you can merely stop by the computer located in the room next door to post your blog privately. Your comments will be vetted and posted to the blog in real time so a running commentary can be captured and viewed by the audience on the screen. In tomorrow mornings session, our




moderated discussion will attempt to allow our faculty to address as many of the questions and comments as feasible. The blog posting URL is lifevitalismconference.ning.com. You will need to log on and register before you can post.

So, today we have brought together a stellar panel of experts on the topic of Vis Meticatrix Naturae. The day will be essentially divided into three parts. The first part includes presentations that address the quality and integrity of the process and will establish the "container" these conversations will occur in. How we listen to each other, what we do with what we hear, and how do we handle highly personal sets of preconceptions, biases, notions and predetermined outcomes that will be important to us as speakers, participants and attendees.

> Vitalism has been relegated to the trash heap of history

The second part will be a presentation that lays the foundation for the philosophical discussion of vitalism; the historical perspectives and contemporary theories that are developing which may help explain and rationalize vitalistic concepts.

The third and last portion of the afternoon will be a series of presentations on the thoughts and vitalistic implications from the perspective of several health care disciplines that embrace a vitalistic recognition for the healing power of nature.

In wrapping up my introductory remarks let me share with you two very different quotes and perspectives. The first is by Daniel Dennett a philosopher and social scientist. In his recent book *'Kinds of Minds – toward an understanding of consciousness"* he states "Vitalism has been relegated to the trash heap of history. Unless you are prepared to declare that the world is flat and the sun is a fiery chariot pulled by winged horses – unless, in other words, your defiance of modern science is quite complete – you won't find any place to stand and fight for these obsolete ideas." By contrast the last quote is from Bernard Haisch, a PhD Astophysist, seminary graduate and author of "*The God Theory, Zero-point fields and what's behind it"*. He suggests that "the challenge for science is to free the tools, experiments, observations, and logic of the scientific method from the shackles of reductionistic ideology, which cannot tolerate the concept of a real and primary, and therefore non-epiphenomenal, consciousness." Well... you will agree that Daniel Dennett has clearly thrown down the gauntlet….The opportunity has been clearly identified by Bernard Haisch ….and the challenge to frame a new, legitimate, centrist vitalistic perspective within contemporary scientific paradigms is ours… So let us begin.

Katrin Kaeufer, PhD Listening, Presence and Transformation

How can you connect to an emerging future? And how can you learn and sense opportunities of what s coming to be and what has happened in the past? This question is the starting point of our work.

Thank you all. Thank you very much. Actually, my dissertation is now in demand again. So I've moved into organizational learning and now we've started a project at MIT called "Multi-dimensional Banking." Banking institutions that are value based. I feel like I've connected to my departure here again. The reason I am here, that I would like to present to you the work we are doing at the Presencing Institute. Our background is in organizational learning and leadership and change. The idea of the question that got the Presencing Institute started and the research that led to the Presencing Institute is the question 'whether it's possible to learn from a future that's emerging?' It sounds a little complicated.

Is it possible to learn from an emerging future? So in our field organizational learning the mainstream idea is to follow. Learning is based on the reflection of the past. So what happens is you do something; you act. You observe what you're doing. And then you reflect on your observation and then you change your behavior. So your learning is basically based on the reflection of a past and the experiences of the past which is very valuable and important. In 1989 I led a group of students to a meeting in East German Berlin that was three or two weeks prior to the fall of the wall. I was a student back then and we were traveling with a professor of peace and conflict studies. And he argued that the wall is going to come down before Christmas (the wall actually came down in October). And we talked with representatives of the church and the civil society and they all said no. And I said no, that's crazy; I was born in 1964 and I've lived all my life with the wall. I couldn't believe there is a change in this set up. The wall came down and [another professor] saw the same data that I saw. So what was the difference? What did he sense that I couldn't see? How can you connect to an emerging future? And how can you learn and sense opportunities of what's coming to be and what has happened in the past? This question is the starting point of our work. What we did then was basically two things. We had a research project set up where we interviewed about 150 thought leaders and practitioners in the field of innovation, change and learning. And we also worked as action researchers which means we went into change initiatives and change projects in order to understand what's happening when you initiate change and transformation. I would like to briefly present to you one of the cases that we worked on.

This is a case in Germany, north of Frankfurt. We worked with a network of physicians. In 1999, a university in a rural area with 280,000 inhabitants started to survey among physicians (similar to primary care physicians here in the U.S). They asked about the challenges and how their work was going. The result was that 60% of the physicians in this survey said that they inwardly resigned from their

work, and 40% said that they had considered suicide. So the physicians who wrote this survey said that they had to do something—to change something. Especially in rural areas the healthcare system had become more and more difficult, with more and more strains on the physicians. So they started to develop a network and asked us to help working with them. There are several results of this network and I want to present one element in this process. The physicians came to the realization that the most important element in their work is their relationship with the patient. Everybody is about health insurance, and invoicing and all these technical problems. But they realize where they get their energy and life source from is their relationship to their patients. So we rented a bus and for a month we drove through the area and we interviewed 100 patients and 30 of their physicians.

There were also a few physicians on the bus and they all took turns and we did long dialogue interviews which usually took an hour or so. And then we invited these 130 people that we interviewed to a session. So they all came together in a school building and we presented what we had found in these interviews. I will give you a few examples of how patients and physicians describe their relationship. So one area of relationship is represented by the following quote, "My health issue is that I have a broken part, a defect. The relationship to my physician than is that he is a mechanic. He fixes the broken part. So you might wonder what this blue thing is, it's supposed to be an iceberg. So on the top of the iceberg is the visible part, the relationship between the patient and the physician. The patient on the left side and the physician on the right side was described by one group of patients as 'a repair mechanic' type of relationship. So there's a defect and my physician helps me to repair this defect. When I have a heart attack it comes from the way I behave. I want my physician to tell me 'Eat more of this, less of this and work out a little bit.' That was another set of feedback we got from patients and physicians. And would this form of relationship be characterized as therapeutic so that the patients who ask for a therapy and you have a physician who is your instructor and the goal is to change your behavior. One becomes sick in order to think. When you say you don't have time, time will be forced on you by making you sick. "When you don't consider life as a present then you become sick." So that's one of the quotes from one of the patients.

The physician has a different role here. The physician becomes the coach. He or she helps the patient reflect on what's happening to them. So the disease is less something that's outside; [the physician] 'fixes my broken part' [and] becomes more and more part of myself. [Another example is from someone who said,]

> When you don t consider life as a present then you become sick."

"I have been someone who never got sick. And then all of a sudden I had cancer. I had always worked hard and just neglected the fact that I was sick. I went back to work full-time. But two years later, I broke down. After surgery, I learned to talk with my doctor about my disease. I only learned at the age of 58 to say, 'No.' I didn't even realize that I had lost my identity on the way down. And now I am not concerned about my future anymore, today is important to me now."

As you hear there is a completely different quality of relationship between the patient and the physician here. We call it the 'Self Transformation.' So the disease is in the core of who I am. And the physician, the way the patient describes the role of the physician here is the midwife for bringing the new in to the world. So after we'd presented the quotes we invited the patients and the physicians that were in the room to vote. To take little dots and to vote first where they see the current system today. And




secondly, where they want the system to be in the future. So they had like brownish dots for the present current situation and green dots for the future. And that's the results. So patients on the left side, physicians on the right side they all see the current system in the more visible area of the iceberg. Where the physician is the mechanic or physician, and the patients ask for the repair. But what most of the patients and physicians wanted is a system that will also allow them to reflect and to transform and to look at what does this disease has to do with me and my life and my biography and who I am and who I want to be. So after that…we had an open dialogue. And then other people in the room stood up who were also patients, but also had roles in the community.

For example, one of the mayors for one of the larger towns in this area stood up. And he said the following, "All we do is focus all of our resources on reacting. On operating on levels 1 and 2, he refers to the first two levels which is reacting against the issues of the past and we are unable to structure politics in a way that we tap into the resources of level 3 and 4. And then a woman stood up and she said, "I am a teacher here in town and the key issue we have in our schools today is that we focus all of our energy and resources on operating on level 1 and 2. Pouring into people that body of knowledge that they can't use once they graduate.

And we are unable to create a learning environment on level 3 and 4 which help people to tap into their own sources of knowledge creation. True learning means to light a flame, not to fill a barrel. Out of this meeting, the patients formed something that they called Citizen Forum where they regularly discussed challenges in the health care system in the area and they became a dialogue partner for the physicians and we ended up working for this group for over 7 years. And their initiative created a lot of innovations in this area.

[One initiative,] for example, was a new emergency system. So in this area next to the 911 number there's also a number where patients can reach 24 hours a day a physician because it turned out that 70% of the emergency calls were not emergencies but people who felt lonely or were lost. Young mothers with children who had sudden fevers or elderly people who felt issues in their body in the middle of the night and just needed someone to talk to. So that was just as an example of one of the innovations which actually ended up saving the health system in this area millions of Euros because it reduces the use of the ambulance system. Just as an example where innovation in this area can lead to.What we concluded from this project is that there are different levels of change and all levels have value. If you have a heart attack and you go to the emergency room you don't want a midwife to talk about what this heart attack has to do with your biographical situation at that moment. You want someone to help you fix the problem right there. But all the areas of levels

> All we do is focus all of our resources on reacting.

have their value in itself. And what we concluded is that we have to learn to access the right level for the right problem. So depending on the problem or the situation you're in you need to have the ability to access all these levels and to operate on all these levels. And it doesn't matter whether you're a physician or a patient or teacher these seem to be relevant levels. So I would like to summarize these levels.

One is reaction and quick fix, the emergency room. The other one has to do with my behavior. The 3rd level has to do with how I'm thinking about the situation. And the 4th level has to do with myself. So what is my source of commitment? The interview study was the other thing that we did. So I will briefly summarize some of the highlights from that.




We talked, for example, with Bill O'Brien who was the former CEO for insurance companies. He used all these organizational learning and leadership tools and has tried to initiate different change projects in his company for quite a while. We asked him, "After doing all this work, what's your conclusion?" And the one sentence that we felt was very interesting and summarizes thinking is the following: 'The success of an intervention depends on the interior condition of the intervener." And this relates to the pace of the physician network. So he's basically saying that you can't go with the same plan into a situation. It depends on where you're coming from. What's your intention when you move into a situation? What's your openness? So he says two people can come into a situation with the same plan. The quality of the outcome will be defined by the intention you bring into the situation. And to summarize this on a different level. What he basically said is, you can, we call this the 'blind spot of leadership.'

The intention of how you work, we call that the 'blind spot of leadership.' An example, when you look at the work of a painter you can look at different elements. You can look at the painting that is in front of you and say, "I like it," or, "I don't like the quality of this painting." You can also look at the way that she or he paints, the process of painting. But there's an even deeper level which is you can look at the moment when the painter stands in front of the empty canvas. So who is she or he in this moment in front of the empty canvas? That might sound a little abstract, [so] I'd like to give you some examples that I hope everybody can easily share.

> "The quality of the outcome will be defined by the intention you bring into the situation.

The first example I would like give is to refer to listening, the way we are listening, the different ways. I talked about how important it is, which kind of intention you bring into a situation. You can easily practice this right away when you observe yourself listening. You can listen and what you're hearing is what you're Downloading. So you listen: someone comes into a room and you say, 'How are you?' 'I'm fine.' You're downloading old patterns of behaviors. This is what we get in school a lot you know. We repeat what we've learned; we are downloading patterns, which is a very relevant form of behavior.

But then there's a second quality of listening and that has to do with you becoming aware of the difference between what you were thinking and what you actually see. And this is what good science is about. You see the difference from your mental model, your framework and you observe a situation and you see there is a difference. Something is not right with my way of thinking about the situation. You call that Factual Listening, which is very relevant; it's basically a scientific exercise. The 3rd type of listening or the 3rd quality of listening is an Empathic Listening and it's harder to describe. So when I'm Factual listening I'm still, you know, there with my framework of thinking and I see something doesn't work the way I though it would work. I do an experiment and it doesn't work so I have to figure out what's the difference.

When I do an Empathic form of listening, I move myself into the situation of the other person and I develop the ability to not only listen from my point of view but to listen from the other person's point of view. And this gives me new ideas and a new perspective. And we argue that this is a very relevant perspective—hard to describe, but relevant. Do you have the ability to see just the situation from your perspective and the factual points about the situation? Or, do you develop the capacity to move into the other person's role? You might not agree with her or him, but you develop the capacity to look into the world from the other person's perspective. We call that Empathic Listening. And the third type of listening we call Genera-

tive Listening. It's a little more difficult to describe and I would like to give you a brief example from the art later on. I just want to summarize.

So we are trying to describe these different qualities of listening we also call Structure of Attention, with these little graphics. Well, the first type of listening or the first quality of listening, I'm acting from the center of myself. I know what this is about. I observe these symptoms. I know what this is about. It exactly fits my framework and I'm downloading my framework. The second quality of listening is that I move to the edge of my entity, of my being and I realize there is a gap between my framework and my way of thinking and what I'm observing out there. And in the third type of listening I'm leaving my personal boundaries and I develop the ability to move into someone else's perspective and see the world from there. And the last form of listening has to do with the ability to sense an emerging future. I want to give you one other example, and I have to switch media for that.

I would like to invite you to observe the following interaction. You will see a conductor, in a performance with a tenor, Placedo Domingo. In the beginning you just see Placedo Domingo, but I thought it was very interesting to watch because all this is about…you have to develop these capacities to sense and to see these things. So, for us it's very relevant that you try to develop the observation skills. So I just would like to invite you to observe the interaction between the two. And then just share it briefly with your neighbor and then share it here with what you've noticed. (Media/ Video played)

So take a minute and turn to your neighbor and share what you'd observed. (Audience talking amongst each other). Thank you….maybe there is someone who would like to share an observation? (repeat question) (Audience response) Any other observations? (Audience response) Any other observations? (Audience response) Yes. (Audience response) There's a common purpose, there's a common experience. Maybe one more? And then….Okay, maybe not one more? Yes. Go ahead. (Audience response) And you make yourself very vulnerable at this moment because it's just him singing this song. There is a huge moment of vulnerability. (Audience response) The intensity..yeah.. yeah. And it's astonishing we still can feel it; it was 18 years ago, it's just the DVD and we can still feel it. So I always think it's astonishing.

So I will like to summarize a little bit what I've said up to now. We have this question, 'Can you learn from an emerging future and not just from your past?' I'm not just saying it's not important to learn from your past but I'm asking if there's a possibility to learn from an emerging future. And our conclusion from our research is that you have to develop the capacity to access deeper levels of knowing. And I tried in this brief time to give you a little bit of an example. One was the healthcare system and what that means in the relationship between the physician and the patient. About different qualities of listening and in interaction was the other example.

I will not go into details here but as a result of this research we developed a process that we called the "U Process." Which is a social technology that allows individuals and groups to move through these different levels. Stop downloading; suspending your judgment, then at one point access your deepest levels of knowing. I will talk a little bit more about that tomorrow morning. But what I wanted to do right now is just to present the core idea of our work and the core research question that we are exploring. Thank you so much for your attention.

Ian Coulter, PhD 'Defining the Field: A Guide to Requirements and Challenges'

All science is metaphor. You can only know the unknown in terms of the known. And when you do that initially, it's always metaphorical. If any philosopher tells you that science is not metaphorical, they don t know what they're talking about. It's always inherently metaphorical, and the reason it is is because we have no choice. You cannot explore the unknown in terms you don't even know.

I want to say how pleased I am to be here. Everyone who is going to present today is going to have a slightly different paradigm. So I'm going to tell you what mine is. I'm a full-time research scientist; I consider myself a scientist and that tends to be what I do for a living. I also attained a degree in philosophy and studied Popper at the University of London who developed a philosophy called critical rationalism. This is founded on the notion that knowledge grows by criticizing knowledge. So if you're a Popperian you tend to be an argumentative kind of person. I do tend to critique things; I do that a lot, and I've done that a lot to chiropractic, to the annoyance of many and the pleasure of some.

The biggest group is the first! My PhD thesis was on Thomas Kuhn, and in the early 1970s there was a huge debate between the Kuhnians and the Popperianss, and they didn't like each other. Popper accused Kuhn of all kinds of irrational stuff, supporting the hippie movement and so on. But I'm also a Kuhnian, so I'm a rare kind of person who tries to understand what Professor Popper and Thomas Kuhn were saying. So the reason I'm saying all this is that my job today is to give you a brief introduction. But what I'd like to do is to give you a framework in which you can think about the discussion you're about to hear, and hopefully to give you a framework that allows you to think about it critically. Because if there's one comment I could make about vitalism in chiropractic is that generally the profession has not approached the subject critically.

I've spent a long time thinking and reading about vitalism, and especially the history of it, because I find it quite fascinating. And I want to give you a very quick summary of that history. I won't go into the content of it as much as some of the other speakers.

The first thing you need to know about the history is that it's a long one. From the ancient Greeks to contemporary philosophers we've been debating

> g enerally the professon has not approached the subject critically.

this thing for a long time. It's been written about by just about all the leading philosophers in western culture; there's hardly any major philosopher who hasn't weighed in on this topic. Some scientists have crossed over as well. I should say that I consider myself a scientist and a philosopher in a sense. That combination is quite rare, by the way: there are only two or three great philosophers who have been great scientists. And even rarer to find someone who's been a great historian, a great philosopher, and a great scientist. So the combination isn't very common; it tends to be philosophy on one side and sci-

ence on the other. Scientists think philosophers don't know anything about science, and philosophers don't think scientists know anything about philosophy.

The next point you need to know about the history is that it's been highly controversial. I don't have to tell you much about that in this audience, because you're very familiar with it. It's contributed to a significant split in the chiropractic profession, and contributed to what I call the 'chiropractic wars.' You're not alone: it's split many professions, including psychology, medicine, philosophy, science. You're a bit rare in how long you've kept it going, but you're at least not alone.

Its death has been announced on many occasions. I think it was Samuel Clemens who said that, "Reports of my death have been grossly exaggerated." Well, that's true for vitalism.

Two nights ago I was having dinner with a researcher who works in CAM, someone who has worked at the National Institutes of Medicine. She asked me what I was doing, and I told her I was coming down here to do this. She asked me what I was going to talk about, and I told her I was going to talk about the fight between materialism and vitalism. She said, "What's that?"

> It s had a long history from the ancient Greeks to contemporary scholars."

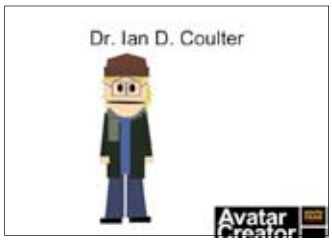
I explained it to her and she had never heard of it. I find it amazing that anyone could work in the area of complementary medicine and not know about this debate. Yet there is a whole group of people like that, because one way that scientists get around the whole problem of vitalism is just to ignore it. It's very multicultural; as you can see, we have different ways of expressing it. The English model is of spirit, soul and body; we think of this today as mind, body, and spirit. From ancient Greek we have a similar expression, and also from the Latin and Chinese. Actually in the Muslim world you'll find a very similar thing as well. So we're not the only ones who have this; most major cultures have incorporated some form of this idea into their type of thinking.

So then, what is it? Well, you've heard a very brief introduction, but it's really the idea that life originates in a vital principle, distinct from chemical and other sources. And it's the belief that there is a vital force operating in the living organism, and that there fore organisms are distinct because of all of that.

If you look at scientists, we can see some extreme positions. The first one is a vitalist approach, and Leberg compares vitalism to gravity. We actually don't know what gravity is. We can talk about gravitational forces, and we can talk about how it operates, but we don't technically know what it is. And he says that it is as legitimate to do that with vitalism as it is with gravitational force. He asserts that what science is about is the laws of gravity, not gravity itself. So he states that science can talk about the operation of vitalism without actually knowing what vitalism is. So we know about gravity through its operation, and thus we can know about vitalism through its operation. I thought that sounded pretty good to me.

The second is from Francis Cric, a more recent scientist. And we can see what his position is. "We can foresee a time when vitalism will not be seriously considered by educated men—I would make this prophecy: what everyone yesterday, and you believe today, only cranks will believe tomorrow." So that's sort of telling you, isn't it? It's a bit of an extreme position there.

Well, what about philosophy? Some philosophers have dealt with it very much like scientists. They have not seen the demise of vitalism. I like Kekes' quote about the demise of vitalism a as a death by a thousand



cuts. He added a qualification to it that it had virtually become useless. He points out that, "Vitalism has been fatally weakened, although it has by no means been proved false." "Vitalism may linger on but it no longer serves a philosophical purpose."

> Recent research in the biological sciences indicates that the property of being alive can be materially analyzed. The distinction between living and nonliving particulars thus no longer need mark two fundamentally different categories." Kekes Is that true?

So he was arguing, as many scientists have, was that vitalism was evoked at a period of time when our knowledge of the body was not that good. The more we know about biochemistry, the more we know about physiology, the more we know about cellular biology, 'the more things we know about, the less you need vitalism.' They argue that vitalism served as a catch-all during a phase at a time when there were a lot of things we couldn't explain. And that now, because we can explain things materialistically, the distinction between the inanimate and the live objects is no longer fundamentally necessary. So he's thinking its dying out or fading away because we don't actually need it. And the great hope here, or the great belief, is that eventually we'll know so much from science that we won't need vitalism. So I'll pose to you whether that's actually true or not, and hopefully our dialogue today will examine whether that's actually true or not.

So then, what's the controversy about? It's really about whether life is distinguishable from non-life. And it's about whether you can use the same kind of laws that you can use—the physical and mechanical laws—can be used to explain life as well. So at its heart, this is the controversy between vitalism and materialism. And there are other people who pose this differently—atomism versus vitalism, and so on. But basically the fundamental argument is this one. Okay, so what are we really talking about? Well, we're talking about metaphysics, and we're actually talking about two quite distinct metaphysical systems.

And so if that's really what this is about, and if you want to participate in the dialogue, I think, then you need to know something about metaphysics. You need to know a little bit about what that is, and it's like if you want to attend a basketball game, you need to know some of the rules. So if you want to participate you need to know something about this, and so I'll try to give you a very quick introduction to metaphysics. And you know they have whole courses and degrees in this, so forgive me if this is a very brief introduction.

So what are metaphysics anyway? Well they are attempts to understand reality. They do attempt to offer explanations, but the key is the third one. They are a priori. An 'a priori' stands because we accept it, we establish it, it stands for something and everything else follows. A good example is Euclidean geometry. Most of you are old enough to have had to learn trigonometry and geometry like I did, and as you remember we used to learn theorems: the theorem of Pythagoras. The whole system of Euclid geometry is established on one single, a priori assumption: that two parallel lines do not meet. And if that's true—and only if that's true—then all of geometry is hypothetically and deductively correct. Truth is, they may meet, and we know from Einstein that they probably do. So if you want to do geometry like that, you have to accept a priori assumptions that two parallel lines do not meet. Then the theory of Pythagoras turns out to be correct—deductively correct. But we don't know if the original a priori assumptions are correct.

The next thing is that they offer schemes by which things can be explained. The best way to think of metaphysics is metaphors. Metaphors and metaphysics

are actually very similar, and they do many of the same things for us. Metaphors don't state facts so much as they state frameworks in which we can talk about facts. Now if I say, "Love is a red, red rose," that's a metaphor. If I say, "the foot of the mountain," that's a metaphor. Now you all know that's a metaphor, right? You know that love is not actually a red, red rose. But by saying it that way it allows you to explore it in a certain kind of way. So if I say, "the body is a machine," that's a metaphor. And metaphors are brilliant, because it is the one way in our language we can try and gain a new understanding by using the literal terms we have. So we take a word we have, like rose, and we can explore new things, using the language we've got, and we do what's called metaphorical extension of understanding.

All science is metaphor. You can only know the unknown in terms of the known. And when you do that initially, it's always metaphorical. If any philosopher tells you that science is not metaphorical, they don't know what they're talking about. It's always inherently metaphorical, and the reason it is is because we have no choice. You cannot explore the unknown in terms you don't even know. So if we talk about atoms, or particles and so on—even if we make up new words like atoms—and I ask you to define that, you can only define that in your language. You can use it in a new kind of way. So metaphors and metaphysics formulate conditions under which we explore something. And I have to say that every metaphysical system has at heart a metaphor; I don't know one that doesn't actually. But basic fundamental theoretical commitments, which is what Thomas Kuhn argued about paradigms, you are an Einsteinian, you are a Newtonian, you accept that paradigm, you do research within that paradigm, and you have these accepted presuppositions: two lines don't intersect. They may be ontological, and of course yours is: there is a God, which is an ontological belief system. Innate universal intelligence is actually an ontological statement. And the role of metaphysics as a field, and here is where philosophy actually differs from chiropractic in many respects, is to actually question fundamentals. One of the things that philosophy does, of course, is to provide critiques.

> It is a notorious feature of metaphysical theories that their truth or falsity is observationally unobservable It is their immunity to refutation that has lead many to allocate them to fields of mysticism and poetry." Kekes.

So here's a summary, again by Kekes. "It is a notorious feature of metaphysical theories that their truth or falsity is observably unobservable…It is their immunity to refutation that has lead many to allocate them to fields of mysticism and poetry." And to lead people like Carl Popper to argue that they really only have a small role in science, and that you should get rid of them.

And so let's talk briefly about science and metaphysics. Again, it's highly controversial. Popper wanted to confine them to the logics of discovery. You can use metaphors in discovery and use metaphysics in discovery, but once you've made the discovery, through refutation and research they become literal, and you get rid of them. There's an old saying in philosophy that 'that which you can speak of metaphorically in science you shouldn't speak of at all.' And so they will argue that you only have them for a certain part of science and then you get rid of them. Others will argue that that's not true, that they are in fact an inherent part of science, and as Agassiz points out, they actually pose the dominant research question of any age.

Think about the difference between Newton and Einstein, for example. Under a Newtonian paradigm, for example, time and space are absolute. Under an Einsteinian one, they are relative. It doesn't make any

sense to ask questions about relativity if you're a Newtonian. It doesn't come up, it's not part of the paradigm. You wouldn't investigate it, you wouldn't even think about it, it's not part of the paradigm. If you're an Einsteinian, of course, it's the dominant question of the age, investigating relativity. And that's the point Agassiz is making.

So just to share some comments about metaphysics and science. I like Wartofsky's approach, and it's one I'm going to recommend to you, and that is a heuristic, or something we use. So it's a heuristic for scientific research and theory formation. And historically in science it was the most general and fundamental science of first principles, so if you go back to Greek thinking, metaphysics was considered the natural science, considered the primary natural science, if you like. And then I should say that despite the attempts of some scientists to get it out of science, they have been spectacularly unsuccessful.

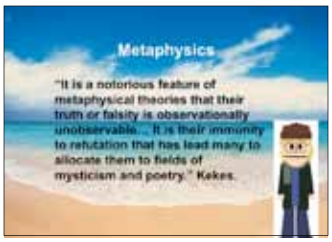
And if anyone's following contemporary metaphysics, you'll know what I mean. It's hard to think of any discipline that's more metaphysical than that at the moment. And if you don't think it's metaphysical, come up and explain to me what a black hole is, or string theory, and we can have a debate about that.

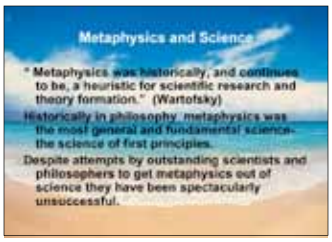
s o what do we mean by heuristic?

Anyway, so what do we mean by a heuristic? It has to do with whether it's useful or not. So what ways are they useful in science? Well, the first way is that they provide conceptual models. The gate theory of pain is a conceptual model, right? It's quite useful. Seeing the actual neural system as a telephone system, seeing the brain as a computer, they're all useful. So seeing the world as a machine turns out to be hugely useful, for us. But here's the limit: you can't think of the heart as a pump until a pump's been invented. Does anyone know what we thought of the heart as before pumps? A stoked furnace. Because we had furnaces, and we knew how to make carbon from it, and so if you look at any ancient writings about the heart before we had a pump, they were seen as a furnace. The idea was that the blood went through and was cleansed by the furnace. And if you want to see a brilliant TV show by an English writer, Jonathan Miller did a whole TV show called The Body in Question, in which he looks at all the metaphors we've used to explain the body. And of course you can't think of the brain as a computer unless you actually know what a computer is. And so we've gone through these periods where we have conceptual models.

The second thing they're useful for is they actually provide understanding. It's not just a conceptual model to say the world is a machine, it actually helps you start looking at the laws, of bodies attracting each other—gravitational pull, for example. If you think about it mechanically you can think about planets moving around in orbit, and you can think about the trajectories they follow, and you can actually develop physical laws to explain it mechanically. So it does actually help our understanding. Well, can you have good and bad metaphysics? And if you get anything out of my presentation today, this is it.

You need to be able to distinguish between good metaphysics and bad metaphysics. Wartofsky made a statement here that, "Bad metaphysics is sloppy metaphysics, lacking rigor in construction, lacking richness in characteristics of its entities, or lacking originality, merely producing bad copies of good originals." And I love his second quote, here: "Many scientists are full of metaphysical hunches but not many…can follow a metaphysical hunch across the street." Which I think is a nice comment. So here's the question I pose to you: can you actually tell the difference between good metaphysics and bad metaphysics? Obviously, chiropractic is metaphysical, but is it all good? Or can you





actually distinguish ones that are good from ones that are bad? And of course because I am a scientist the way I would pose that is to ask, are there rational criteria that are used to tell the good from the bad? I will tell you that you do this with metaphors all the time. All of you know what a right metaphor is. After all, look at Shakespeare. After 300 years we all still think his metaphors are fresh and wonderful, and the brilliance of Shakespeare is really in his metaphors. So we seem to be able to do this; certainly in aesthetics we do this all the time. The question is, can we do it here? Well here's—you'll know how old I am by the title. The younger ones won't know "The Good, The Bad and the Ugly," but some of the older ones here will.

> But they are in need of and are always meant to have rational support.

Well the first thing you should say here, at least in science, and whatever else you can say, because we teach science in our courses and we assume that at least therapeutically there is some science in what we do and say in the biological sciences, so we are committed to that. It does not explain everything, but at least we're committed to it. They do stand in need of rational support. They have to make sense. They do have to have logical consistency; you can't say, 'I like six but I don't like half a dozen;' you can't say 'time is absolute and space is absolute' and speak of relativity in the same paradigm. And the last two or three are the real keys for me.

It should have problem-solving capacity. Rob mentioned my book, and in my book that's one of the questions I say we need to ask. How many health issues puzzles does vitalism solve for you? What does it add that other things don't? So that's explanatory power. What can we explain to patients and develop in terms of therapies that materialism can't do? What kind of power do we do, or don't have? And the last one is the most important one: it should have criticizability. They must be criticized. They are in need of and should always have rational support. They should always be part of rational debate and dialogue. And I'm not sure that's always been true for us. So here's the last word I want to make on metaphysics, then.

"When a metaphysics holds itself immune from critique then it degenerates into non-metaphysical ritual and dogma." And what I'd like to do, because I'm going to suggest to you that this is what's happened often in chiropractic—and I'll boldly say that to you and get off the stage pretty quickly—(laughter)—let me give you this set of questions.

Has chiropractic been haunted by metaphysics? Now let's just think about that for a minute. Has it been controversial? Has there been a sustained critique? Have they operated as dogma? Is vitalism one of those dogmas? Now I don't know what your answer to all of those is, but the only one I'll say no to is 'has there been a sustained critique?' I think all the rest are correct for chiropractic. You have been haunted by it; you've battled, you've been pulled apart, you've actually got different associations, different political organizations, different colleges,a whole bunch of things that have really hurt you in a way. And it's made sure you were split as a profession.

So if I'm going to make that claim, then, how has it come about? Well it comes about in a very fundamental way. It comes about when you forget something. It comes about when you forget that metaphysics are metaphors. The moment you forget that when you say 'the world is a machine' is a metaphor, you're in trouble. The metaphor goes underground, so instead of seeing it as a metaphor you now see it as a literal truth.

So this is what happens. You have a very fresh, exciting metaphor: vitalism. Innate, universal intelligence.

First postulated by the Palmers, it was exciting. They were not the first ones to say it, but it was refreshing. If you then say that that is the absolute truth; no one can challenge it, no one can change it, we've got to keep it exactly as B.J. said, you've forgotten that it's a metaphor. That's when metaphors become myth. So what was a possible truth—the world is a machine—a powerful truth, becomes what we go out and explore, learn lots of things, have a great research program—it became so great science thought it had come to an end with Newton; that's how good it was. But then we say, 'it's the only possible truth,' and the moment we say that, now we're in dogma. We really have a problem.

That in social sciences is called reification. Things that we create we no longer see as our creation; they add back on us, they blind us, they stop us from changing in new ways and visiting a new future, is one of the things they stop you from doing. [You must] you see this as a metaphor, as a kind of game. Let's pretend the world is a machine; let's pretend the brain is like a computer; let's pretend the neural system is like a telephone station, a relay system, as long as you say that, those are very exciting metaphors. And then you judge them heuristically.

How many things do they solve if we say that? How many problems do we solve if we say the brain is a computer? Now as long as we see it as something else, a literal truth, then we've forgotten it's metaphorical, and I'm going to suggest to you that's what happened in chiropractic. That many people who wanted to defend and keep things exactly as they were said by the Palmers have actually forgotten. I don't know what the Palmers would have done, but I'm pretty sure that if D.D. were here he would have actually come up with some other way to say this, because you can always change the metaphor: that doesn't mean it's not vitalistic. You use 'innate universal intelligence;' traditional Chinese medicine uses 'chi.' Every one of them uses a different metaphor, but it's still vitalism, right? So the thing that I think you need to think about is how do you change the metaphor, but preserve the vitalism?

> Chiropractic is inherently metaphysical.

So here is my conclusion. Chiropractic is inherently metaphysical; vitalism has been part of that metaphysic, quite clearly; it's the only characteristic that I can find that all CAM (Complementary and Alternative Medicines) share. You are different in a whole bunch of ways, but every CAM I've been able to come across is vitalistic. Homeopathy, naturopathy, osteopathy, chiropractic, traditional Chinese medicine, Ayurvedic medicine, all—in one way or another—are all vitalistic. And it's the one thing that distinguishes them from biomedicine. It's the only thing that really truly does distinguish them. Biomedicine is materialistic, you're vitalistic. And so the question comes, and this is a good time to pose this question to a healthier system, what does a vitalistic approach give you? And I've suggested in my book that it gives you a different way of thinking about health; it gives you a different kind of practice; it gives you a different kind of intervention. So I think it's not irrelevant.

Once you take a vitalistic paradigm your notion of what a healer is changes completely. From the mechanics to something quite different. So there's a cartoon about a famous New Zealander, and most of you will not be old enough to remember this, a guy named David Lowe who created a character named Colonel Blimp. Those who have been in England will know this, because it came to have a meaning. Between the first and second World Wars he developed this little character. He was a very right wing, conservative character. He so offended the Nazis, by the way, because he started a cartoon called "Hit and Muss" that he was on a hit list; if Hitler had invaded England David Lowe was one of the first to be executed. And so he created this little character here.

And so this is my favorite quote here: "Gad, sir, reform is fine, as long as it doesn't change anything." It's like saying, 'retirement is great as long as it doesn't get in the way of work.' And I think that's part of the problem; sometimes we get locked into the thinking that if we want to be vitalistic we have to preserve the way it was originally defined at the beginning of chiropractic. And that really is not correct, right? We can change. And here's my final slide. Thank you!

"…it's easier in the scientific community to accept metaphors relating to black holes and string theories, and multiple, co-existing universes than it is for science to accept the concept of a non-epiphenomenal consciousness

Rob Scott, DC PhD

The cartoon reminds me of the political campaign we recently had here. I appreciate your comments.

Well we've finished the first part of the morning. We've completed the groundwork, framework, the environment for how to listen and participate in the conversation. We've created the container that will house the questions as we move forward into the discussion of contemporary and classical vitalistic philosophies. What was intriguing to me in Dr. Coulter's comments were the issues of metaphors. Metaphors—vitalistic metaphors, biomedical metaphors—and of course scientific metaphors.

And I'll agree with Dr. Coulter that the single biggest concern that the professions have that embrace the vitalistic approach—the vis medicatrix naturae approach—is the lack of critical rationalism. It's the critical rationalism that will create the questions you ask as you investigate your approach. And we've asked, frankly, very poor questions. And maybe we've asked the wrong questions and in that context there's an absence of support.

I also find it intriguing, as Dr. Coulter alluded to, that it's easier in the scientific community to accept metaphors relating to black holes and string theories and multiple, co-existing universes than it is for science to accept the concept of a non-epiphenomenal consciousness, as Dr. Hersch spoke of in the book I referred to earlier this morning.

Monica Greco, PhD

'The Challenge of Vitalism: Classical and Contemporary Frames of Thought'

Life is the condition of possibility for knowledge, and therefore it has logical priority. Science itself must be regarded as a creative manifestation of the activity of the living. And a science of the living specifically cannot afford to forget that knowledge stems from life, and that life is larger than knowledge. The ethical imperative that is implicit in vitalism therefore involves a different attitude towards the relationship between scientific knowledge and the world.

I would not be the first to begin a general presentation on vitalism with some form of disclaimer. As the renowned historian George Rousseau has put it: 'from the time of Aristotle's biology, vitalism has been a topic of such methodological complexity that no single chapter, no matter how well researched … can hope to do justice to it.' (1992: 17).

Even so, it is useful to open this discussion with the reference to a generic definition of 'vitalism', if only because this is what most critics of vitalism – and they tend to be in the majority – take the concept to mean. According to the Merriam-Webster online dictionary, vitalism is

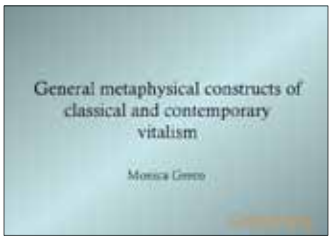
1. a doctrine that the functions of a living organism are due to a vital principle distinct from biochemical reactions ('vital spark', 'elan vital', 'soul')

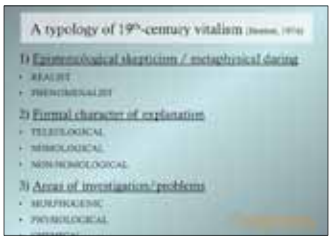
2. a doctrine that the processes of life are not explicable by the laws of physics and chemistry alone and that life is in some part self-determining

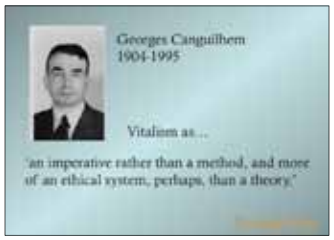
In academic circles, vitalism today is most readily associated with a series of debates among 18th- and 19th-century biologists and physicians. As such, it is an object of active interest and research primarily among historians. And we might say that in the last two decades or so this interest, if anything, has intensified; the literature has proliferated (see e.g. Wolfe 2008; Williams 2003; Rey 2000; Cimino and Duchesneau 1997). With the meticulousness that is typical of their discipline, historians have begun to unfold some of the variety of meanings and ideas that are usually subsumed under the single term 'vitalism'. On this basis we are cautioned against confusing, for example, the animistic vitalism of Stahl (1659-1734) with the medical vitalism of the Montpellier School (in the second half of the 18th century); and these in turn with the neo-vitalism that became influential in the first half of the twentieth century through the work of the embryologist and philosopher Hans Driesch (1867-1941) (Wolfe and Terada 2008).

The message we get from this scholarship is very strong: historically, the differences *between* vitalists have been at least as significant, and sometimes more significant, than those that divided vitalists from non-vitalists. This makes it difficult, and inadvisable, to begin a conversation on vitalism on the basis of a definition. From a historian's perspective, the task then becomes one of constructing a sufficiently sophisticated typology. Benton (1974), for example, offers a typology of 19th century vitalism that is ordered along three dimensions, each comprising different categories.

In Benton's typology varieties of vitalism differ, first of all, in terms of their degree of epistemological skepticism (or metaphysical daring). Within this dimension some vitalists, like Georg Ernst Stahl in







the 18th century or Johannes Müller in the 19th, posited the existence of a metaphysical agency or entity: something like a spirit, mind or soul, or 'vital force' understood to be the cause of living phenomena (Benton calls these *realist* vitalists). Others, by contrast, did not refer to a material or immaterial agency, but sought describe the 'principles' or laws governing vital phenomena, which might be deduced through careful observation. These would be organic natural laws, but different from those of physics and chemistry. Benton offers the work of the anatomist and physiologist Bichat as an example of this cateogry of vitalism, which he calls *phenomenalist*.

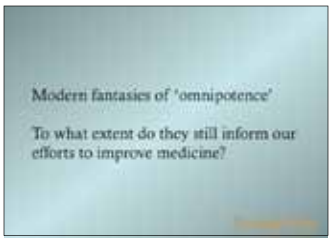
A second dimension on which vitalists may differ regards the formal character of the explanation they proposed. Some of these explanations are explicitly *teleological* in character: that is, they assume that vital principles or powers are analogous to a mind or a soul in that they operate rationally in pursuit of a goal (this type is especially evident in the field of embryology). Other types of explanation, however, do not assume such purposiveness. And they may or may not acknowledge a law-like regularity in the manifestation of vital powers or principles (*nomological* and *non-nomological* vitalism).

Finally, for Benton, vitalism should be distinguished in terms of the problems or areas of investigation to which it has been addressed as a form of explanation. *Morphogenic* vitalism is addressed to the problems of growth and development, tissue regeneration and healing; *physiological* vitalism is addressed to the functions and processes of the living being considered in abstraction from structural changes, such as the maintenance of internal organisation, for example. And, finally, *chemical* vitalism is addressed to the question of whether organic chemistry should be distinct from inorganic chemistry. Without dwelling further on the details of Benton's categorisation I wish to note that, on one level, such a typology is both interesting and useful. It corrects some common misconceptions surrounding the term vitalism. For example, it tells us that vitalists were not necessarily committed to the belief in a substantive metaphysical agency – such as a 'life-force' or a soul (see also Wolfe 2008). Their commitment might rather be to an abstract principle specifically applicable to living phenomena. It also tells us that vitalist explanations were not necessarily teleological – they did not all presuppose an underlying rational purpose or design.

In other ways, however, a typology such as this one is largely irrelevant to us. It is crafted by historians, for the interest of historians. It poses no challenge to the prevailing assumption that 'vitalism' is, indeed, to be confined to history.

> It poses no challenge to the prevailing assumption that vitalism is, indeed, to be confined to history.

Today some prominent and influential commentators, like the biologist Richard Dawkins, use 'vitalism' simply as a derogatory label associated with lack of intellectual rigour, anti-scientific attitudes, and superstition. In this sense, vitalism would appear to be simply a relic from a pre-scientific past: the persistence of an irrational outlook on nature and the world, to be dismissed as such. This will not be surprising, since Dawkins is well known as an advocate of genetic reductionism. Others, however, offer a much more compelling –and respectful – case for regarding vitalism as obsolete. In their well known work, *Order Out of Chaos* (1984), Ilya Prigogine and Isabelle Stengers present vitalism not as the relic of a pre-scientific past, but as a form of thought deeply correlated with the emergence of modern science. Vitalism, they argue, developed as a meaningful response to the conceptual limits imposed by a Newtonian, mechanistic understanding of nature – an understanding that saw nature as a vast automaton, composed of nothing but intert mass, and



motion. Indeed, there was no place for life in such a conception of nature. The vitalist 'protest' against the physics of the time was not a form of anti-science, but rather something like an assertion of empiricism, on the part of chemists and physicians who 'had to face directly the complexity of real processes in both chemistry and life' (1984: 83).

From Prigogine and Stengers' historical contextualisation, it follows that vitalism remains meaningful and relevant *only* if we make the mistake of identifying science in general with Newtonian (or classical) science. Only, that is, if we fail to acknowledge the difference that the emergence of a new science of complexity has made, and is yet likely to make, to our conception of nature. In classical science, 'the basic processes of nature were considered to be deterministic and reversible. Processes involving randomness or irreversibility were considered only exceptions. Today we see everywhere the role of irreversible processes, of fluctuations.' (1984: xxvii). In the context of the physics of irreversible processes, biological organisation no longer appears as an

> "…is it possible to speak of contemporary vitalism ?

exception to the laws of nature. Rather, it appears as 'the supreme expression of the self-organizing processes that occur' in far-from-equilibrium conditions (1984:175). In this sense, contemporary developments in physics and chemistry may be said to perhaps justify the vitalism of the past, but to make vitalism 'redundant' today.

In what sense, then, is it possible to speak of 'contemporary vitalism'? What might it mean to be a 'vitalist' today? I propose to answer this question mainly through the work of a self-proclaimed vitalist writing in the second half of the twentieth-century: namely the historian and philosopher of biology and medicine Georges Canguilhem. Canguilhem is particularly interesting and relevant to this forum because he was also trained as a physician, and in his work he explicated – he made explicit – some of the consequences of vitalism for the theory and practice of medicine. In the latter part of my talk I will turn to the question of paradigm change.

Canguilhem: vitalism as an ethical imperative

Canguilhem proposed that vitalism should be understood as 'an imperative rather than a method, and more of an ethical system, perhaps, than a theory' (1994: 288). Vitalists affirm the originality of life, and this – Canguilhem argues – is an *attitude* before being a doctrine. When the concepts of classical science could not quite account for vital phenomena – be these epigenesis, the placebo effect, or the flight of a bird – classical vitalists refused to have the latter explained away. They refused to believe that the special characteristics we associate with living things are but secondary qualities, illusions to be explained by reference to an underlying, more basic and scientifically validated version of reality. When faced with the uncomfortable choice of whether to place their trust in the science of their day or in life, the choice of denying one or the other, vitalists sided with life. Bergson articulated this attitude very clearly when he wrote, in *Creative Evolution*, that *'the "vital principle" might indeed not explain much, but it is at least a sort of label affixed to our ignorance, so as to remind us of this occasionally, while mechanism invites us to ignore that ignorance' (Bergson, 1911: 42; see also Greco, 2005).*

Vitalists, then, affirm the originality of life. For Canguilhem, however, approaching vitalism primarily as an *attitude* changes what we might understand by this 'originality'. When classical vitalism took the 'originality' of life to mean that life constitutes an 'exception' to the laws of the physical *milieu*, in his view it commited a philosophically inexcusable mistake. Classical vitalism, in this sense, was a purely

reactive form of thought: it implicitly acknowledged the logical priority, and the normativity, of the world described by the sciences of physics and chemistry. The originality of life, Canguilhem argues, cannot be claimed only for a segment of experience; it must extend to experience as a whole. Biology must affirm its own 'imperialism' (1975: 95).[1]

So, if life is not 'original' in the sense that it constitutes an exception to the laws of nature, in what sense is it original? For Canguilhem, it is original in the sense that it 'comes first'. Life is the condition of possibility for knowledge, and therefore it has logical priority. Science itself must be regarded as a creative manifestation of the activity of the living. And a science of the living specifically cannot afford to forget that knowledge stems from life, and that life is larger than knowledge.

The ethical imperative that is implicit in vitalism therefore involves a different attitude towards the relationship between scientific knowledge and the world. An attitude where scientific concepts are explicitly regarded as abstractions from a greater whole, rather than true representations. This attitude is not an attitude of dismissal: our abstractions are tools of life, and as such they are valuable. But they are valuable in so far as they are relevant: their worth is not guaranteed in advance by a method, but stems rather from what they create, what they add to the possibilities of life.

What are the implications of a generalisation of a biological mode of thought to the whole of experience? In the words of Isabelle Stengers, this extension implies 'a radical reorganisation of what it means to describe nature'. In particular, it implies an understanding of nature as permeated with value, rather than indifference.[2] In the context of biology, and within a biological mode of thought, it is readily apparent that '[i]f we are able to describe something it is because this something has achieved some endurance' (1999: 202). The term 'achievement' is not chosen casually: it points to the fact that in biology the identity of anything – any thing – is not a neutral given, is never unproblematically maintained, but rather constitutes the successful negotiation of a field of relations, the realisation of a value. To quote Stengers again: 'All our so-called descriptions depend on this success and

Stengers makes these points in the context of two articles designed to introduce readers to Whitehead's philosophy. While Whitehead cannot be described as a 'vitalist' in the classical (and typical) sense of the term, his philosophy is compatible with Canguilhem's vitalism.

1 This proposition is strikingly close to the project developed by Alfred North Whitehead in Science and the Modern World (1925). In the reading offered by Isabelle Stengers (1999, 2002), Whitehead regarded the life sciences as having been 'handicapped' by their respect for physical explanation, or for 'scientific materialism'. Whitehead's project in Science and the Modern World was to centre the whole concept of the order of nature around the notion of the organism.

2 In establishing value-neutral 'facts', science expresses a particular way interrogating nature which can itself be regarded as a form of creativity expressing a particular value. Isabelle Stengers describes this way of interrogating nature as the achievement of modern science, whose specific value lies in enabling 'a critical division between what it defines as sheer opinion and objective authority' (1999: 198). This quality of 'objectivity', however, describes a mode of relating to nature rather than nature itself – a mode of relating that may be good for some purposes but not for others, and that may not be equally relevant to all situations or phenomena. Stengers, expresses this point as follows:

'I would never deny that dealing with some parts of nature as devoid of value and feeling may be quite useful in certain circumstances. For instance, I can punch this table in order to better convince you. I am the one who decided to hit the table, and I am also the one who felt the shock while the table remains indifferent. However generalising this indifference of the table to the whole of nature leads to being unable to take into account the very simple fact that not everything in nature is indifferent.' (Stengers http://www.mcgill.ca/files/hpsc/Whitmontreal.pdf, accessed on 13/04/2009).

are in fact as many ways to celebrate it' (ibid.). Today, in principle this applies also to the objects of physics – say, a proton – since these are no longer conceived in terms of entities that can be defined in isolation from a field. Even so, physicists can afford to ignore this point. It makes sense for them to address the stability or instability of the proton in value-neutral terms since in their field, and for their purposes, this mode of description is both relevant and effective. And indeed, for a vast domain of experience, even the abstractions of classical (or Newtonian) physics do remain relevant. For biologists, however, the difference between stability and instability, between 'functioning' and mere 'becoming', could never be dismissed: it is the difference between life and death, a difference no biologist can afford to ignore.

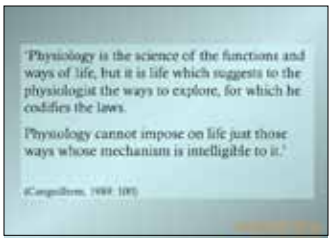
Organisms and values

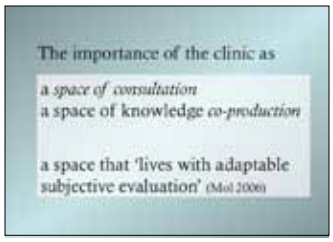
Canguilhem argued strongly for the importance of acknowledging values as *inherent* in nature, inherent to the order of life. He believed that, in embracing objectivity and quantification uncritically, medicine was in danger of adopting a very limited conception of health. In his most famous work, he proposed that the difference between health and illness should not be reduced or conflated with the difference between the normal and the pathological (where the latter constitutes a deviation from the normal). Being healthy, he claimed, involves being *normative* rather than being *normal*. It involves the capacity to set one's own norms of life, to live according to one's own values – not in absolute terms, of course, but in terms of a greater margin of freedom within the norms of life imposed by an external environment. Canguilhem illustrates this point through the example of a children's nanny, who perfectly discharges the duties of her post, [and] is aware of her hypotension only through the neuro-vegetative disturbances she experiences when she is taken on vacation in the mountains. Of course, no one is obliged to live at high altitudes. But one is superior if one can do it, for this can become inevitable at any time. A norm of life is superior to another norm when it includes what the latter permits, and what it forbids. (1989: 182)

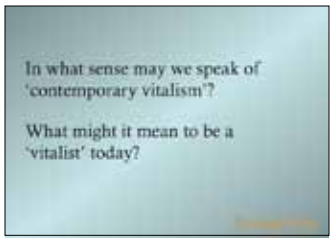
"For biologists, however, the difference between stability and instability, between functioning and mere becoming , could never be dismissed

This is why [b]ehind all apparent normality, one must look to see if it is capable of tolerating infractions of the norm, of overcoming contradictions, of dealing with conflicts. Any normality open to possible future correction is authentic normativity, or health. Any normality limited to maintaining itself, hostile to any variations in the themes that express it, and incapable of adapting to new situations is a normality devoid of normative intention. When confronted with any apparently normal situation, it is therefore important to ask whether the norms that it embodies are creative norms, norms with a forward thrust, or, on the contrary, conservative norms, norms whose thrust is toward the past. (1994: 351-2)

In practice, however, it is not unusual for the concepts of health and of normality to be used synonymously. This is often the case in everyday language, and it is especially true for 'health' as a collective ideal based on criteria derived from epidemiology: we speak of normal values in a set of blood test results, or normal capacities as measured in relation to a given set of tasks, and we associate these with the health of those functions. These norms of health are generated in a social practice of knowledge and as such they are social norms.Canguilhem insists we must distinguish social norms from norms that are *organic* (or *vital*, in his vocabulary), because the latter are always relative to an individual.







There is, of course, an intimate relationship, at least in the case of human beings, between social and organic norms.[3] On account of this intimate relationship, it may appear redundant or misleading to propose a distinction between the social and the vital. It is nevertheless important to make the distinction, as a reminder that organic possibilities (and their significance as values) should not be identified, or reductively confused, with those that are intelligible to us in the form of scientific abstractions. To say it once more with Canguilhem: 'Physiology is the science of the functions and ways of life, but it is life which suggests to the physiologist the ways to explore, for which he codifies the laws. Physiology cannot impose on life just those ways whose mechanism is intelligible to it' (1989: 100).

The importance of the clinic

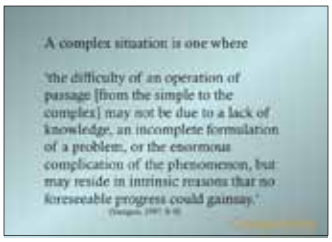
For Canguilhem, the consequence of acknowledging the normative character of life and health was to stress the primary importance of the practical form of knowledge associated with the *clinical consultation* – in contrast, for example, to the type of knowledge gathered in the laboratory, or through epidemiological methods. The value of the clinic is original – again, in the sense that it is from this context that medical knowledge is abstracted. 'Physiology', Canguilhem writes, 'is the collection of solutions to problems posed by sick men through their illnesses' (1989: 100). The clinical consultation is the context where doctors encounter their patients and the life they bring with them, in all its complexity.

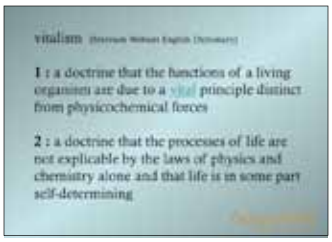
The importance of the clinic as a space of knowledge production is also underlined by Annemarie Mol in *The Body Multiple* (2002), an ethnographic study that focuses on atherosclerosis to demonstrate how even within the space of a single hospital we find multiple versions of this disease. Different specialties, treatments, instruments, techniques of observation and measurement will each enact a slightly different 'atherosclerosis', and these different versions do not automatically coexist in relations of harmony and coherence. The differences between them are irreducible, and coherence is achieved through a range of tactics and communicative efforts (e.g. case conferences, doctor-patient conversations). Mol's line of argument is very different from Canguilhem's, but it lends further support to the conclusion that the clinic constitutes a space of particular significance for medical practice – precisely as the space where much of this effort to coordinate realities that may be mutually contradictory or in tension occurs.[4]

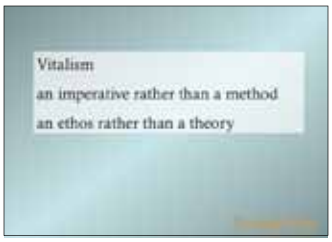
She proposes that her analysis 'lends support to clinical medicine' and specifically 'sides with those voices that seek to improve the clinic *on its own terms*' (2002: 183, 184 my emphasis). The reason for this emphasis on the clinic's *own terms*, Mol explains, is that current efforts to improve medicine, including clinical practice, are based on enacting a 'so-called scientific rationale' (evident, for example, in the quantitative tradition of clinical trials). The purpose of such a rationale is to stabilize and singularize what we understand as the reality of health and disease, to offer a picture of this reality as something internally coherent and objectively 'true'. In other words: unlike the clinic, a context that lives with adaptable subjective evaluation and practically manages the uncertainty that comes with it, a so-called scientific rationale works with an ideal of reality from which doubt and contradiction can be eliminated. But doubt and contradiction, as Mol's ethnography so clearly demonstrates, do not stem from inaccurate or insufficient knowledge.
They stem from the fact that reality itself is complex, such that multiple enactments of, say, atherosclerosis, can coexist in relations that practically involve mutual

3 On organic norms in humans see Canguilhem (1989: 165-172 and 257-273).

4 Mol frequently acknowledges the influence of Canguilhem on her own thinking. The differences between her own and Cangulhem's line of argument in defense of the clinic are discussed on pp. 121-124 of her book.







exclusion *and* inclusion, contrast *and* interdependence, and so on. If uncertainty as to the best course of action is irreducible, *one* task of politics, Mol argues, is to safeguard and support those sites, practices and spaces where doubt and uncertainty are articulated and debated *as such* – that is, not with the anticipation that better knowledge will be able to resolve them. The clinic is one such space.

Is a paradigm change what we need?

Let me try at this point to let Canguilhem speak directly to some of the concerns of this conference. Does it follow, from his approach, that we need a 'new paradigm'? It certainly follows that collectively we need to develop a new attitude towards scientific abstractions. Not, as we have seen, in the sense that we should dismiss them as irrelevant – but in the sense that their relevance must always be interrogated, contextualised, never taken for granted. But Canguilhem's emphasis on the importance of the clinic also points in another direction.

In a sense the new paradigm, in the form of complexity theory, is already here and has been here for a while. The question (and the difficulty) is what lesson we should draw from it, and how it may be translated into practical efforts to improve medicine. Once again, I turn to Isabelle Stengers to explore the significance of the theme of complexity. As we shall see, this theme has strong affinities with vitalism as an 'ethical imperative'.

Stengers stresses that if the theme of complexity is interesting, this is not because of how it expands the horizon of what we may know. If complexity is interesting, it is because of how it changes not just the content of what we think, but also how we think. In other words, the vision of the world as complex remains relatively uninteresting if it is treated as 'paradigm' that comes in to substitute another, without affecting what is understood to be the ethos of scientific knowledge and its relation to the world.

How does the theme of complexity change the way we think? How does it affect the ethos of scientific knowledge and its relation to the world? This can be clarified by looking at the contrast between the notions of complexity and complication. A phenomenon is *complicated* when the task of predicting its behaviour is difficult due to incomplete information, or to insufficient precision in the formulation of questions. In principle, however, it is possible to explain and understand a complicated phenomenon by *extending* a simple, fundamental model.

To the extent that the programme of molecular biology is reductionist, for example, it treats the reality of living beings as a tremendously complicated reality, but one that is nevertheless regarded as understandable, in principle, in terms of the model of a chain of physico-chemical determinations. A *complex* phenomenon, by contrast, is one where 'the difficulty of an operation of passage [from the simple to the complex] may not be due to a lack of knowledge, an incomplete formulation of a problem, or the enormous complication of the phenomenon, but may reside in intrinsic reasons that no foreseeable progress could gainsay'. (1997: 8-9)

The theme of complexity, in other words, invites us to aknowledge the possibility of forms of ignorance that cannot simply be deferred to future knowledge. It is an invitation to learn how to live with forms of uncertainty and doubt without the anticipation that they will be dispelled; and invitation to learn how to practically manage such uncertanty and doubt without explaining them away, and how to value them as the source of new questions. In this sense, the ethos implicit in the theme of complexity is similar to that of the clinic, as Mol in particular has described it.

> w e shall one day be the masters of our own destiny

If this is the lesson that we take from the theme of complexity, then we should perhaps relinquish the modernist fantasy according to which, given the 'right' knowledge, we shall one day be the masters of our own destiny. Once we acknowledge that this type of fantasy is no longer tenable, we might also begin to acknowledge the urgency and importance of different questions. Questions like: how can we provide good care, despite uncertainty and doubt? Indeed what constitutes 'good' care? What values matter in the context of care? These are partly political questions – questions that require open discussion rather than scientific settlement. But they are also questions that we may explore empirically, by looking at practices of care, what makes them more or less effective, what sustains them and what undermines them, and how we might improve them *on their own terms* (see Mol 2008).

Calls for a 'new [medical] cosmology' (Greaves 2004, 1996), or a 'successor paradigm' (Foss 2002), or a 'new medical model' (Engel 1977) are relatively abundant, but they are also invariably relatively marginal, at least in their effects. In a way, this is not surprising. Laurence Foss (2002) has compared the task of effecting paradigm change in medicine to that of rebuilding a ship at sea. It is difficult to imagine how the ship can keep sailing, as it must, while it is being rebuilt.

The suggestion is that the practical task of attending to medical problems is both urgent and relentless, and what is urgent tends to trump what is important. I want to make a different suggestion. Namely that, no matter how scientifically inadequate the 'old' paradigm might be, there are ways in which it remains socially *relevant*. We need to ask what shared values and concerns an outdated scientific model may serve to protect and promote, such that it should prove to be so enduring. To say it in a different way, and in the spirit of a vitalist attitude, we need to relinquish a myopic focus on a problematic of knowledge in order to embrace a wider horizon of experience.

With homeopathy we look at it rather differently. We treat the constitution or genomeThe constitution of course, has a long and honorable history in not only western medicine almost ignored in contemporary western medicine. [We use] constitutional medicine, a medicine that matches the patient s susceptibility. Not the symptoms of disease, the susceptibility of the patient. And you hope to get restoration of the healthy state.

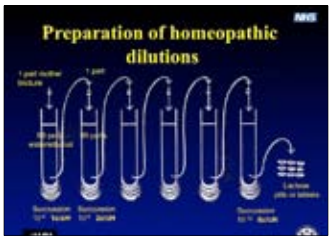
Well, thank you very much for inviting me; it's a great pleasure and honor to be here. I'm going to approach the problem of vitalism really from the opposite end as my fellow Londoner, Monica Greco, and start to look from the contemporary, empirical, scientific point of view. And it'll become apparent to you as we move along why I'm concerned to base it on science.

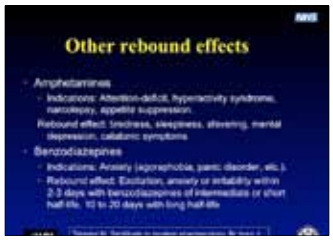
And I'm going to address a question that was posted on the blog, which asked, 'how can vitalism be expressed apart from theological terms?' Well, it can be, and I want to at least start to address it in those terms, and that's where I'm going to start. But before that, let's discuss what homeopathy is. Homeopathy is one of the most misunderstood forms of complementary medicine. In fact a few years ago when we did a review of the adverse effects of homeopathy, we reviewed the world literature, and nearly half of the reports allegedly of claimed adverse effects of homeopathic medicines were not in reaction of homeopathic medicines at all; they were of herbal medicines, so it is much misunderstood.

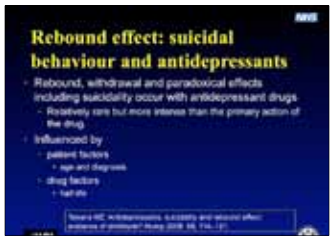
It's a system of medicine based on this idea, 'treatment of like with like.' In Latin it reads 'similia similbus curentur,' which literally means, 'let like be cured by like.' The controversial part of it includes the use of minimum dose, including ultramolecular dilutions, and we'll see what ultramolecular dilution is in a moment. Other important features that come into play include the idea of holism and constitution and *terrain*. *Terrain* is not [the English] terrain, but the French word that means literally 'soil.' The idea of 'seed' and 'soil,' so that if the patient is the 'soil' and the disease is the 'seed.' Certain seeds flourish in certain soils, an idea in use in much of French conventional medicine. And also of idiosyncrasy. And these ideas, of constitution and *terrain* are ideas I will touch on later on.

But just to give you an illustration. This is a homeopathic medicine we call *Belladonna*, made from Deadly Nightshade. I've chosen this because *Belladonna* in Italian means 'beautiful lady,' and actually the etymology of the word is very interesting. 'Atropa' was one of the Three Fates, who in classical mythology wove the fabric of men's lives, and she was actually the one who cut the threads, ending life. So it's an interesting etymology, the 'deadly beautiful lady.'

But the reason it's called *Belladonna* is because of these very characteristic black, shiny berries. This is the deadly part because kids, attracted by these berries, eat them, and they're very poisonous. Belladonna comes from the fact that in the *Renaissance*, Italian ladies would crush the berries and drop them into their eyes, which would give them dilated pupils. They couldn't see where they were going, but they looked very sexy!—allegedly. And the reason I tell you that story is that is its signature: it has berries







that look like a big, black, dilated pupil. But that is also a negative point: it is not homeopathy. The signature is a beautiful idea, a metaphorical idea, not homeopathy. In homeopathy we are plagued by gurus who claim their own different versions of homeopathy, claiming their own doctrine of signatures. But homeopathy is not the doctrine of signatures.

So any doctors in the audience will be familiar with this; atropine comes from 'atropa,' it is atropinic, anticholinergic, that it blocks acetylcholine, one of the most widely used neurotransmitters. It blocks the parasympathetic nervous system, causing tachycardia, hot, dry skin, dilated pupils, and very often confusion and delirium. And that is what we use it for very often in homeopathy: typically a kid with acute otitis media, [who presents with] a bright red sore throat, tachycardia, hot dry skin and confusion. So that is just

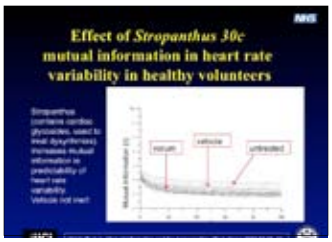
> t here s a Homeopathic Pharmacopoeia in the United States

to give you an idea of similarity, of pathosimilarity. It is not metaphoric similarity, and I may have to have an argument later with Ian about metaphors!
Now, the controversial part of homeopathy as I said is the very high dilutions. This is how you make a homeopathic dilution. You start off with one part of the mother tincture; in the case of Belladonna it's closely defined (there's a Homeopathic Pharmacopoeia in the United States, and a number of other countries have Homepathic Pharmacopoeias which define exactly what this must be, and how you test it). You dilute it into highly distilled, deionized water of high grade, high purity and ethanol, and you succuss it.

'Succussion' simply means that you shake it against a firm stop. And you repeat that six times over for a 6c/ dilution, which is a commonly used dilution. Usually it comes in lactose pills or tablets, but it can come in liquid form, injectible form or powder. But actually the medicine is in liquid form and it is absorbed on these tablets. So the 6c/ means 'six times centessenal dilutions,' but the day before yesterday, the day I was in clinic, I was using a 30c/ dilution, or five times over. Now there's a fundamental problem with all this. You may dimly remember something called Avogadro's Number. Avogadro was an Italian Count and mathematician, who pointed out that matter was made up of atoms and molecules and was not infinitely subdivisible. Loschmidt actually discovered the number; the Italians and the Germans argue over whose name should be on the number. Most people use Avogadro, at least in the English-speaking world we speak of 'Avogadro's Law,' but the number is Lohschmidt's, and the Germans call it 'Lohschmidt's Law.' But at any rate the implication is that it is extremely unlikely that at dilutions beyond that level, in other words if you were to do this twice, at 12c/, that the dilutions contain any molecules of the starting substance. And this is undoubtedly a scientific problem, but not an insuperable one. I could give you a whole lecture on what we think is going on in terms of information. There is now increasingly strong evidence of structural changes in the diluent.

What I want to turn to now, though as I mentioned is the empirical base. I don't want to start from a metaphysical point of view, and I want to promise you that I'm not going to further overwork that overworked word, 'paradigm' even once in my presentation. What I want to talk about is the empirical basis for vital reaction.

Hormesis: hormesis is simply the stimulatory or beneficial effect of a low dose of a toxin. Sometimes called 'the hockey stick curve,' here you see an inverted hockey stick [on this slide] with the hook at the bottom. The linear no-threshold model is just a straight line. So what we are looking at here, for instance, is the effect of the insectide Clordane on the weight gain



of crickets. Crickets are insects, and Clordane is an insecticide, so it should kill crickets. And indeed it does, above a dose rate of 100 parts per million. But look at what happens at 1 part per million: it is doubling their rate of weight gain. You can demonstrate similar things with physical agencies. This is the effect of low-grade gamma-radiation on the rate of weight gain of guinea pigs. And this is a very wide-spread phenomenon. Indeed, there is a guy called Lucky who goes around giving a lecture on this in which he produces a graph relating background radiation in all counties of the United States with standardized mortality ratio and shows a linear relationship—but with the opposite slope from which you might expect. Standardized mortality goes down with increasing background radiation. And this is a hormesis echo; he argues that the human race evolved in a much higher radiation effect than we live in today, which is certainly true, and that we actually need a level of background radiation, because [it stimulates] a vital reaction. And I could show you graphs of very similar results from cell cultures to whole animal populations.

> This idea is not a new one

The idea is not a new one; this is from Paracelsus, an amazing character. I could give you a whole lecture on him. His full name was Theocrastus Bombastus von Hochenheim. And that is the etymology of 'bombastic,' because he was extremely bombastic. He was a real character, but a very interesting guy, and he clearly had this idea a long time ago. He was one of the pioneers of toxicology.

To look at some of the more recent things, this is the Vioxx scandal, which caused up to half a million deaths or serious heart attacks in the US alone. Just a few details: the relative risk of having a heart attack soon after starting Vioxx was 1.67, nearly twice the chance you would have otherwise, about nine days after starting. And compared to traditional, that is to say non-selective COX inhibitors the relative risk is 42%.

So this is a rebound effect, and these effects are extremely wide-spread. This is from Marcus Teixeira based in Sao Paolo Brazil. He went through Goodman and Gillman's classical book on clinical pharmacology and found that they're all over the place. The many, many reported rebound effects…and some more.

Another rebound effect, again this is Marcus Teixera, these are the rebound effects of suicidality with SSRI antidepressants. So there are rebound effects with withdrawal, but also paradoxical effects—when you start. So they are relatively rare, but more intense than the primary drug. And what is interesting is that he's now starting to find the conditions under which it occurs.

So it is influenced by patient practice—much commoner in younger people, influenced by the diagnosis—much commoner in people being treated for a major depressive episode, and with other indications. For instance, SSRIs are also used for OCD, and those people are much less likely to attempt suicide, particularly in the paradoxical phase, just after starting treatment. And drug factors are more common in drugs with short half-lives. So we're starting to define vital reaction.

This is another kind of paradoxical effect if you like, and I'm showing it for two reasons, really. One is because we understand the mechanism well, and the other is that it shows the action of very high dilutions. So this is a basophil. Basophils are circulating blood cells which contain it their cytoplasm [structures that stain blue]. These granules contain histamine, and other immune mediators. On its surface it has IgE, immunoglobulin E, and these recognize specific allergens. So, for instance, if you mix the blood of a

patient which has hay fever with pollens, the IgE will recognize it and activate the cell.

You can also do this with anti-IgE, and although this is an IgG immunoglobulin, it will stimulate any basophil to be granulated. The consequence of activating the basophil is that these granules come out and release histamine into the supernatant. The histamine, then, has a negative feedback effect. It deactivates the cell and prevents histamine from being released. This is simple negative feedback.

But what has been shown recently is very interesting and exciting, and seems to be a reproducible result, is that the ghost of histamine—and this is an ultramolecular dilution, 10^{-30}, way beyond the Avogadro limit, has the same effects. It deactivates the basophil. So here we understand the mechanism; this is again is a paradoxical effect. And here, with this one, you get a secondary effect, the rebound effect without the primary effect. So this is really the trick of homeopathy, to try and stimulate the vital reaction. [As this slide shows] the results are highly significant.

So far, the whole whole idea of homeopathy is based on the idea of the vital reaction, the idea that we're triggering not what the drug causes, but how the body reacts to the drug. Secondly, we believe that high dilutions trigger secondary reactions without the primary reactions. And, in fact, that the vital reaction has been extensively experimentally verified, known by all these names: hormesis, which we discussed earlier; homoligosis, an ugly word preferred to hormesis in the pharmacological setting; paradoxical pharmacology, where there's a lot of interest using low doses of drugs to achieve the opposite effects of the higher doses; rebound effects; dose-dependent reverse effects, and so on. There are many names for this phenomenon. In some cases we know the mechanisms for this phenomenon: up or down regulation, enzyme induction or cybernetic feedback as we just saw, but it's often uncertain. Another point is that presensitization is critical: it won't work unless the system is presensitized.

So now let's just turn to Homeopathy itself and some of the ideas about the vital force. So this is Samuel Hahnemann, the founder of homeopathy, who lived from 1755 to 1843. He was a very interesting guy, of humble origins. His father was a painter of Meissen porcelain, but he had an encouraging life story. When he was 75—he was a widower—living alone in great obscurity in a small town in Eastern Germany, and was quite embittered, actually. His writing from that period is very depressive and garrulous.

One day he was consulted by a young Frenchman. This young Frenchman, rapidly turned out to be a young French woman. Within three months they were married, and six months later she whisked him back to Paris where she was very well connected. She had been a student of the painter [Guillaume Guillon-Lethiere] and rumored to have been the mistress of the Prime Minister of France, and for the last twelve years of his life he became a rich and prosperous Parisian physician. So there's hope for us all!

> Without the vital force the material body is unable to feel, or act, or maintain itself.

But what he's saying is about *virtual* diseases. Homeopathy consists of giving a virtual disease, similar to *belladonna*, that is like the disease that you're trying to treat, and resulting in cancelling out. This is again from Hahnemann. "In the state of health the spirit-like vital force (dynamis) animating the material human organism reigns in supreme sovereignty. Without the vital force the material body is unable to feel, or act, or maintain itself." However, there are also some divergent views. This is a fierce attack, and as you may be aware homeopathy has been under attack within the UK by skeptics. But this is not a skeptic, this is Dr.

Anthony Campbell, a former colleague of mine who's now retired, but who used to be a senior doctor at our hospital. And he says that the vital force doesn't have any identifiable source, it doesn't obey any laws; it is simply postulated *ad hoc* to explain whatever alleged effects need to be explained. It can't be pinned down, it can't be questioned; it gives the illusion of meaning without substance. A fairly scathing attack—but one with which I have quite a lot of sympathy. I think he makes a valid point, and that's one of the reasons why I'm really trying to be empirical about this, starting from a very solid empirical foundation.

We need to be a little more specific about what we mean by 'vital force.' Just to show you there are various classifications in homeopathy of vital reactions. They are basically divided into two categories.

This is from James Kent, James Tyler Kent, who was a contemporary of D.D. Palmer, a great North American homeopath of the late nineteenth century. [Under curative] you sometimes get temporary aggravation, you sometimes get a worsening of the symptoms, followed by an improvement. Sometimes you get a 'playback' of old symptoms. And you have these various non-curative things, reactions that may relate either to the wrong medicine or to an excessively weakened vital force.

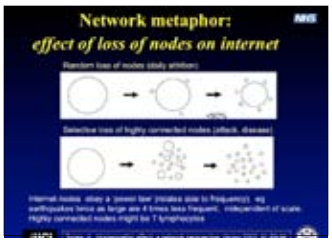
But I think before we go any further we need to dissect a little the vital force. I think there are two different levels actually. There's what I call the Animating Principle. Hahnemann called it *Dynamis* as we just saw. *Pneuma*, meaning breath, meaning literally 'breath,' is the classical Hippocratic concept you have a very closely related concept in Chinese and in your traditional medicine. And very frequently these refer very explicitly to the 'breath.' And then you have a healing force. The *Vis Medicatrix Naturae* which is a slightly different thing which is a natural healing force and I'm going to talk mostly about this because I think in this area we get very speculative and I don't think we are ready to go there. This is the area I want to discuss mostly.

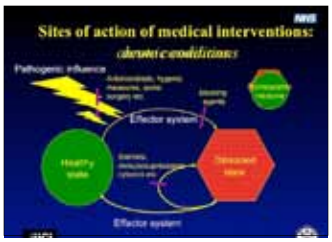
> i n this area we get very speculative

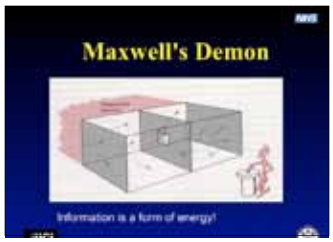
And perhaps the first thing to recognize is that it's not a 'force'. We need to not use the word 'force.' It is not a 'force' in the modern scientific sense of an impulse which causes forces defined in Newtonian terms. It is an impulse which causes an object that mass changes its velocity. And clearly it is not a force in that sense.

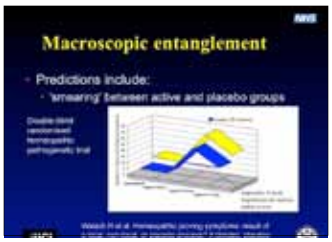
So what about a definition? This is a definition proposed in fact Paolo Bellavite who is a professor of Pathology in Verona in Italy. Which I think is a nice elegant definition and it's something you can actually start to work with. It gives you some concept which enable you to work towards understanding the Vital Force, and not treating it as something that is necessarily metaphysical; as a tool, something that could be of use to us but can guide us and improve our practice.

So it hinges on this concept, this complexity theory concept of an emergent property. An emergent property is simply a property of a whole system which can not be predicted from the properties of its parts. So it's an emergent property of the aggregate of cells which constitute a living organism and it generates an all encompassing field which organizes the elements of that totality into an entity capable of resisting entropic dissipation. Entropy, one of the frightening consequences of the second law of thermodynamics. Everything runs down. And it is not localized in any one cell, organ or body part. It is a result of the total organism. So I think this is a very useful and interesting definition and one that gives us something to get our teeth in to.









So what about complex systems? Well, these are the main properties of complex systems. They are non-linear. They self organize and they are dynamic. And they begin a starting point for understanding the action of homeopathic medicine. Which you have to understand is a matter of vital reaction. You shouldn't be thinking about the medicine so much as the vital reaction it elicits.

So they are non-deterministic and highly sensitive to initial condition. This is the famous butterfly wing. And they are very often close to—and when they are close to a critical point, close to boiling point. For instance, they exhibit chaotic behavior. We'll define chaotic behavior in a moment. And they are very common in biological systems. And the reason for this is that they are highly sensitive. They react in a non-linear way to a small stimulus. When a small stimulus representing a life-threatening or some event or something requiring a large adjustment, you need a complex system which is close to a critical point which will adapt very rapidly. And this is being shown. For instance, very well documented, but you can predict heart attacks 48 hours in advance because the ECG rhythm loses its chaotic behavior; it becomes more regular. And this demonstrated very widely in many biological systems. So, just chaotic systems. The behavior of course is not completely random. It's influenced by—I love this word—strange attractors. Which is in fact a geometrical figure to which the long term behavior of the chaotic system is attracted. They

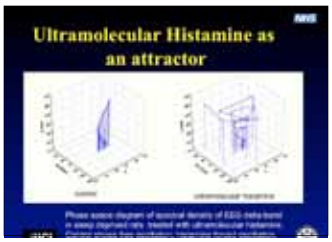
> h eart rate variability is inherently chaotic.

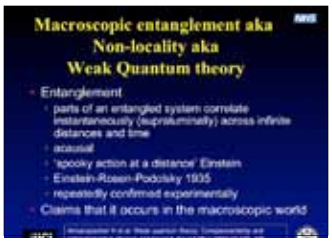
have this weird, apparently weird property. They have infinite length contained in a finite surface. Although, it sounds really weird but actually when you think about where it came from this idea it's a bit more comprehensible. Mandelbrot of Belgium was looking at the official statistic issued by the Portuguese and Spanish governments concerning the length of their common border. And found that they differed by a factor of five. One thought the border was five times longer than the other. And he asked his self how on Earth can this be. And actually the explanation is very simple. It depends on the scale in which you measure. If you measure it on a one kilometer scale you're going to be much shorter than if you measure it on a ten centimeter scale.

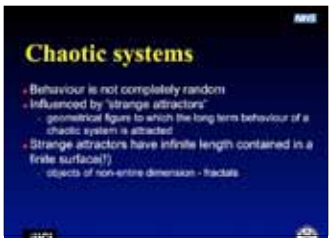
And then another point, another issue that comes up in complex systems is this whole thing of sensitivity near critical points. And you get this paradoxical effect, or it seems odd, stochastic resonance. So, when you're close to a critical point just random noise may push you over the critical point and may trigger a very important change. And that's why it's very important to us to understand how these incredibly small stimuli that occur with homeopathy might act.

So a rather busy slide I'm afraid, but just explaining some of the main issues which complexity theory brings out in relation to homeopathy. So non-linearity, the lack of a straight line, a dose-response response curve, rebound effects, this idea of transference by resonance, and then in self organization. This organization of the symptom pattern and dynamicity. The biological sensitivity. Priming and sensitization is very, very important. You need to have a sensitive subject to get a result with homeopathic treatment. And just to show you an implication of [this] in terms of heart rate variability.

As we said earlier, heart rate variability is inherently chaotic. It is a healthy condition to have chaotic heart rate. And this the effect of *stropanthus*, a cardiac glycoside, a form which contains cardioactive substances in a very high dilution on healthy volunteers. And it looks at mutual information. Mutual information is basically the concept that comes from Claude Shannon, the great innovator in information theory. Which







basically tells you how much, how predictable the rate is. How much you can tell about the future rate from the present rate. And this is not the most brilliant slide you've seen I'm afraid, but this untreated. This is with the vehicle, and this is with verum. So you are actually increasing mutual information. In other words, decreasing the variability of the heart rate. So this is actually a pathological effect. An effect away from a healthy condition but the vehicle is not inert. So this is done in the Universidad Michoacana in Mexico.

Another one. This is a strange attractor. This is looking at the effect of histamines again actually. This is purely coincidental. Histamines, we looked at histamines early, histamines have a wide range of effects it's only been recently recognized as an important neurotransmitter in the brain. Those are H3 receptors as opposed the H1 receptors that cause allergic reactions, and the H2 receptors that are involved in stomach ulcers. These are H3 reactors which exist in the brain.

> i ts only been recently recognized.

So this is the spectral density of the EEG delta band in sleep-deprived rats. I'm showing you this is what happens if you just let them sleep it off. This is the effect of histamine and it shows you the strange attractor—the attractor of histamine gradually bringing it down to zero. So this is a free oscillation. This is a so-called forced oscillation. But that is the strange attractor of histamine in the EG in sleep deprived rats.

Now to look at chaotic behavior in a clinical situation. These are two very important studies that is done in homeopathy looking at isopathy. Isopathy means treatment of the same with the same. So treating people who allergic to house dust with homeopathic dilutions of house dust. A classical piece of work done by colleague David Taylor Riley published in the Lancet showing big differences in favor of homeopathy. So that's placebo. That's homeopathy. The homeopathy group did much better; this is in terms subjective scores.

A so-called repetition published in the BMJ didn't show the same affect. Here this is the homeopathy. The black line is placebo. So no difference there or at least apparently no difference. These were said to be repetitions of the same study. In fact they're not. There are important differences; again I apologize for a very busy slide. But basically the difference was, the Riley study was an efficacy study. It was a fastidious efficacy study. The diagnosis was tightly made. The patients were diagnosed with RAST to show that they were allergic. It was a very tight fastidious study done in a university department. The Louis study was a much looser study. It was looking at really, 'does this stuff work in practice.' It was done in general practice. The diagnosis was much less tight. And the outcome criteria were less clearly defined. So this was what we call an efficacy study, high internal validity. This was an effectiveness study, high external validity, in other words, relevance to the outside world.

But in fact the Louis study did show a difference. This is to show there was in fact significantly more variable in the verum homeopathic group. So you can see this is in peak flow rate. The visual analog scores meaning subjective scores, and this is the mood scale. So all those scales showed more variability statistically, significantly more variability in the homeopathic group compared to the placebo group.

So what they are saying is that the treatment did indeed disturb the self organization setting out a patient-specific oscillation. And at this point, I suppose I've got to come back to Ian, now I'm starting to talk in metaphors. This is the metaphor due to Lionel Milgrom, the gyroscope metaphor for the vital force. So gyroscope, you know actually feels sometimes like a live thing, you try to push it over and it bounces

back. It has an angular momentum at right angles to gravity, always trying to stand up; it does feel like a live thing. As it starts to slow down it precesses. It tries to wobble. And also it's less able to throw off adherent objects stuck to the flywheel which the precession, the slowing down is reduced vital force in this metaphor. The lessened ability to throw off adherent objects in this metaphor is chronic disease; and in this metaphor environmental influences,

> "…you know actually feels sometimes like a live thing…"

adverse environmental influences correspond to friction on the barrens. So Lionel Milgrom believes that he has a quantum metaphor in other words it doesn't just precess randomly; it drops in a step-wise fashion. And the symptoms should be observed from here. The observer is looking from below the x-axis. You're looking up here and what you see is the wobbling. So that would explain the wobbling you're seeing. This is the wobbling of the gyroscope. And interestingly enough, Lionel Milgrom also points out that the concept of spin also exists in chakras, in traditional Indian medicine. The chakras are said to be spinning. So this is another link or form of Vitalism theory.

Another metaphor, this is from José-Leonel Torres in Mexico. He's just really taken well-established data on the Internet. This is basically computer modeling of what happens to the Internet when it's attacked. So if you have just random loss of nulls, typically about 0.3 percent of nodes that are out of action at any one time. And nothing really happens, you don't really get a serious degeneration of the network until a very large number of nodes are being knocked out if it is random attack. If, on the other hand it is focused on the highly connected nodes, these are the Google servers, the Amazon server, the FaceBook server, then you get to those 3%, you get breakdown of the nodes at a much much earlier stage about 3%. And the Internet nodes obey a power law which relates size to frequency basically meaning that you have large numbers of nodes without many connections, our own home computers and very small number which are very highly connected. Power laws are very wide spread, it's a very interesting concept. So earthquakes twice as large are four times less likely to occur. And that is scale independent it doesn't matter if you're comparing Richter 8 or 9 earthquakes or Richter 1 and 2 earthquakes. The same relationship applies. They are scale independent. And in fact the factor is 2.54. The power law in that Internet node is a bit more than square. And he suggests that the highly connected nodes in this metaphor might be T-lymphocytes or they might be certain elements of the central nervous system.

So let's attempt a bit of a synthesis to understand how the different medical interventions might work. So now here we're talking about acute conditions. So you start off with a pathogenic influence which might be an infection. It might be physical trauma, it might be psychological trauma. But anyway, some kind of pathogenic influence. And that you could block with antimicrobial, with hygienic measures, some forms of surgery would block how this disease affects the system. And of course blocking agents which are very widely used are--I almost used the work paradigm there. I'm sure they are some of the most commonly used concepts in conventional pharmacology. The idea of blocking agents of course comes in here.

Homeopathy looks at it in a rather different way. So here you have the homeopathy medicine with resembles the disease state but is more intense. I just put it in a less faded color. And though this is a phenomenological thing. You've just hit the disease and you stimulate the affected systems to restore health. More commonly though in conventional practice, we're talking about chronic conditions. (Oops let's go back) And here the pathogenic influence is very often trivial, multiple or very unknown. Very often unknown. So

this idea of treating the pathogenic influence doesn't come into it. You have, very often unknown or trivial or multiple pathogenic influences and it's the patient's susceptibility that is of crucial importance. And very frequently what is happening is you are getting, you know, perpetuating mechanisms. And this might mean altered immunity but it might be

> These are naturalhea ling process which have some how gotten out of control.

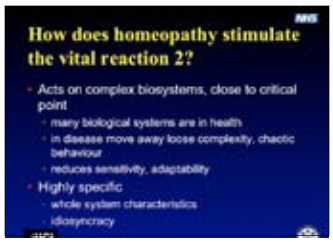
uncontrolled proliferations, it might be microsis, it might mean fibrosis. These are natural, in the right context, healing processes which have some how gotten out of control. And this is an area of huge development in contemporary pharmacology, steroids, immunosuppressants, cytotoxics--all block those processes in various ways, and there are numerous new and highly expensive drugs which will come into this category.

Here with homeopathy we look at it rather differently. We treat the constitution or genome. Genome is not exactly identical to constitution but they certainly have a lot in common. The constitution of course, has a long and honorable history in not only western medicine almost ignored in contemporary western medicine. But here you are looking for a constitutional medicine, a medicine that matches the patient's susceptibility. Not the symptoms of disease, the susceptibility of the patient. And you hope to get restoration of the healthy state.

So how does homeopathy stimulate vital reaction? Well, by providing information reflecting the nature of the disease similar but stronger—whatever that means. We believe that it hinges on information stored in liquid water. This is analogous to magnetic media. It's not the same. I do emphasize analogous. If you take a homeopathic medicine in high dilution to a analytical chemist and say 'What's in here?,' he'll say 'Well, it's lactose, water and alcohol.' Which is quite true from the chemical point of view. But if you take a floppy disk, a floppy disk is a rather old metaphor now, but maybe a USB stick and say 'What's in here?,' the working part of a USB stick is nearly all silica with a few small amounts of phosphorus or arsenic galenide or some, you know, trace amount of doping substances. He will say, 'It's basically silica with trace amounts of arsenic or phosphorus in it.' Which of course is perfectly true from the chemical point of view. But it may contain many megabytes, it might have "Gone With the Wind" on it, it might have the complete works to Shakespeare, it might have a computer virus, it might be completely blank for all you know from the chemical point you just don't know. It is information and the information is stored in a physical form. Clearly in homeopathy, it isn't sorting quite, it's water we're talking about so the mechanism is not the lining up of magnetic dipoles. It is probably a dynamic fractal structure and probably mediated by hydrogen bonds.

So it acts on complex biosystems close to the critical point which is why this pre-sensitization is so important. There are many systems of course in health that are close to critical point. And in disease they lose complexity and lose chaotic behavior. So it is highly specific. It depends on whole system characteristics and idiosyncrasy.

So what is information? Well, the truth is nobody really knows. It's a bit like gravity. As the image pointing out, we use it all the time but we don't know exactly what it is. But basically it's related to the probability the system will be in a state by chance. And it is a fall of energy, which increases entropy. And the easy way to understand this without getting into the mathematics is Maxwell's Demon. I'll introduce you to Maxwell's Demon. This was invented by the great British nineteenth-century physicist Charles Clark Maxwell, as an apparent contradiction to the second law of thermodynamics. Second law of thermodynamics says



basically everything runs down. All processes increase entropy. And he said, 'Here's something that doesn't increase entropy.' Here's this demon. You have two compartments with gases in them at the same temperature. When the demon sees a molecule heading for this little door, which is moving fast he lets it through. Presses this button and the molecule goes through. If he sees a slow moving molecule heading for the door he leaves the door shut. And that of course will result in faster moving molecules here than in here. And that apparently is a contradiction of the second law of thermodynamics.

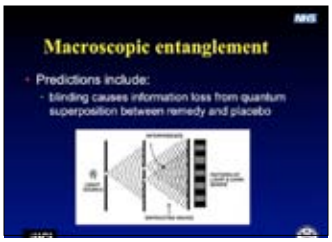
It's only fairly recently that it's been shown that it isn't because the information increases the entropy more than the division of the molecules does. The information is a form of entropy. It's a form of energy and therefore increases entropy to be precise.

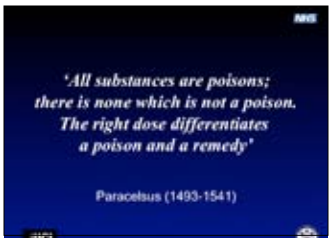
Now it's coming to a very difficult area which is so difficult but there's not even an agreed name for it but the people who work on it seems to agree that all these things do refer to the same things. 'Macroscopic entanglement,' also known 'non-locality,' also known as 'weak quantum theory.' Now entanglement is a quantum phenomenon, which undoubtedly does happen at the microscopic scale. Famously called by Albert Einstein 'spooky action at a distance.' And it was in fact Einstein, Rosen and Podolski who came up with it in 1935 to disprove Quantum Theory. It derives from Quantum Theory and they say, 'it's so ridiculous; you've got two particles, which could interact superluminally, meaning greater than the speed of light and that according to relativity cannot happen.' These two particles are entangled across infinite distances. And Einstein said, 'well look, it proves quantum theory is wrong because this can't possibly happen because nothing can happen faster than the speed of light.' Except he shot himself in the foot because it does happen and it has been repeatedly experimentally demonstrated. But we're talking about the quantum level at Planck's Constant, which is incredibly small number. There are now claims, which as far as I can see are entirely, unverified that it could also happen at a macroscopic scale. This is the seminal reference on that if you're interested.

> The information is a form of entropy.

And there are various theories about entanglement in the homeopathic literature. There's the 'one-way entanglement,' which just points out in these high dilutions there is entanglement between the starting substance and the final substance because they've all met at some point. There is 'two-way entanglement' between patient remedy and the patient and practitioner. Frankly I think some of these theories could do away with a sharp slash Occam's Razor, this one in particular. If you want to say it's a placebo effect why didn't you just spit it out and say so. Why get so complicated and invoke macroscopic entanglement when conditioned reflexes will do which undoubtedly exists will explain this as well.

And then the three-way, so-called 'PPR Entanglement of Milgrom,' which has the advantage of bringing in subjectivity and consciousness. This is Milgrom's illustration based on quantum wave theory so here's the patient, here's the practitioner, here's the act of treatment. So this is a metaphor. This is a metaphor based on quantum wave theory. So the patient seeks help. This is putting out an alpha wave, the blue one. The practitioner responds by taking the case so that's the red wave. And the handshake corresponds to understanding the case and prescribing the medicine. And then you get entanglement here and here outside the consultation. The waves cancel out, in other words, the patient is cured. We need to have something we can disprove. You need to make some prediction that we could actually investigate. And here it is remarkably difficult to pin them down to make a prediction you might be able to disprove. But here's one they





will make. Based on the quantum theory, quantum phenomenon of the famous double line experiment, that if you have a light source, a coherent light, passing through two slits you get an alternative bands of dark and light. You get interference. So what they are saying by analogy you get interference between remedy and placebo in double-blind studies.

And this is a study that claims to have demonstrated that. This is a homeopathic pathogenetic trial meaning a clinical trial giving healthy volunteers a homeopathic medicine. So this is the placebo. This is the active. And you get what they call smearing. In other words, the placebo group also got the same symptoms as the active group. And they say this is a 'macroscopic entanglement' phenomenon that there has been entanglement between the placebo and the active groups. And this is one of the few bits of experimental evidence that they will offer for it. I have to say I think there are other possible explanations. This is what you would expect and this is in fact what is observed. So there is a little bit of experimental data that might support that idea.

So finally, just to run down what I've said. Homeopathy is based on the idea of cure and like curing like. The controversial part is the use of very high dilutions. It exploits the second reaction of drugs to stimulate vital reaction. Well, the second reaction to drugs is, to be more precise, is vital reaction. And recent work develops modification of complex behavior with homeopathic treatment in various systems including animals, human volunteers and patients.

The key concepts from complexity theories are linearality, self-organization and dynamicity. We've looked at the metaphors of the gyroscope and the network and of macroscopic entanglement, which is again a metaphor, although in some of the writing there is this alarming tendency to slip. You know they start out talking about a metaphor and halfway through the very complex paper you realize they're talking about as if it is an established reality. And I think this is one of the problems with the use of metaphors.

So what do we need to do next? Well I think we need to recognize that vital force is a construct. It is never going to be directly observable. We will only be able to observe surrogates of the vital force. And of course it is not a force. I'm reminded of a famous quotation from our ex-prime minister, our highly controversial ex-prime minister Margaret Thatcher, who said, "There is no such thing as society." Which of course is…well it depends on how you look at it. Nobody's ever touched society and how you measure society there's lots of different ways you might measure society. She has a point. There is no such thing as society in the sense of something you can touch or directly measure. But it is a construct without which it is very difficult to think about anything and for sociologists to be employed.

We need to define the circumstances under which vital reaction occurs. We need reproducible experimental models. And we do, I've shown you one, the histamine model, which does now, is reproduced by three or four different groups. And we need to understand; we need theoretical work to understand what is the effect and how it occurs.
How is it mediated? And I think to think in terms of mechanism may be misleading. I think we do need to stop thinking as other people have said in terms of machines and in terms of perhaps phenomenological ways.

So finally, why bother? Why go through all this effort to reinvent Vitalism? I think there are a number of good reasons. There are pandemics of chronic disease of iatrogenesis, where twenty per cent of patients in hospitals die not from the disease but from the treatment. And of low-grade unwellness. Of chronic

fatigue syndrome. These things are now pandemic scale. We need, there's clearly a need for individualized medicine. Genomic medicine has made extravagant promises to deliver individualized treatment. So far as I can see, they haven't delivered anything so far. There is a need for a whole new agenda around, in Europe we salutogensis. Seems to be called Health Creation in the United States. The words mean exactly the same as ones uses Latin and the other one uses a horrible mixture of Latin and Greek to be honest. But anyway they do mean the same if you have enough classical scholarship. And the data, as I've shown, the data demand theoretical empathy. There is a lot of data out there, which shows at least the existence of vital reaction, which is presumably a reflection of vital force.

And nobody has put it together. Nobody has tried to think it together. Nobody has tried to develop a theoretical framework in which to think about it. So I think that is one of the biggest challenges that we face today. And I thank you for your attention.

Rob Scott, DC PhD

Thank you, Dr. Fisher. I certainly know a lot more about homeopathy. I was going back to our premise this morning and earlier comments thinking that the purpose is not to think whether a particular perspective on vitalism is acceptable or not, but the purpose is whether or not it has a meaningful difference to the way we provide care. And as an applied physiologist I'm going to quote Dr. Greco here, and one of her comments struck me here as well. "Physiology is the science of the functions and ways of life, but it is life which suggests to the physiologist the ways to explore it, for which he codifies the laws."

So the perspective you have in how you look at this plays greatly in the interpretation of those outcomes. What I heard from Dr. Fisher struck me: the whole concept of such low doses affects the positive outcomes that are so tangible and empirically demonstrable. It really questions, I think, the whole construct of pharmacological dosing that we see today. Does that have an outcome on the effect of health care as we suggested this morning. My sense is that it truly does. From the physiology perspective—and I love this—that the purpose is to trigger how the body reacts as opposed to how it reacts to a drug is again a very different perspective on how you approach the health care dilemma.

Talking about complexity theories and typologies that we were speaking of earlier, systems theories, are we beginning to see—and I'm not even going to use the words 'contemporary sciences,' because I'm going to use the words 'emergent sciences'—of quantum theories and complexity theories, and some of these theories that we now have to explore to start to explain the types of data and empirical outcomes that we are seeing in the examples Dr. Fisher shared with us? Data demands empirical underpinnings. We're seeing data that isn't explainable within the conventional biomedical perspective. And that requires a different training, a different thought, and hopefully a different outcome. So I hope you picked that up in the presentation as well, and I thank you Dr. Fisher.

Joseph Pizzorno, ND

Vitalistic Philosophy – Naturopathy

The interaction of the body, mind and spirit functions within the matrix of very complex equations that govern the optimal practice of naturopathic medicine. Naturopathy attempts to both discover the nature of the equations (*the Vis*) and amplify the positive effects of the aspects of the equation. Amplifying the positive is the same as increasing the Vitality of the aspect of the equation.

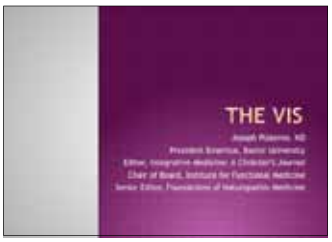
Thank you Rob for the kind introduction. I'll also like to say thank you to Dr. Stephen Bolles and to Dr. Rob Scott for creating this conference this is a very exciting opportunity. And I also like to acknowledge them for having the courage to hear from the rest of us first, all of us other healers, philosophers, researchers by our perspective on this rather than having Chiropractic come first, but come last with a 'cleanup batter,' I guess you'd say.

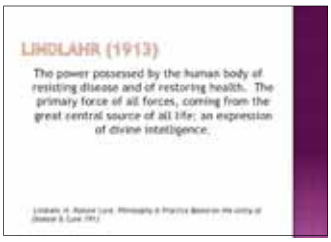
So I feel a bit of trepidation today because I look at myself as a clinician not a philosopher; all these well credentialed scientist [are] telling us what we should be knowing here. I've given, not exaggerating, a thousand lectures on natural medicine literally all over the world. I've never given a lecture before on the healing power of nature. The *Vis Medicatrix Naturae* though I've thought about it a lot. So I want to say thank you for the opportunity to actually have to sit down and say what do I really think and believe. So this is what this lecture is about.

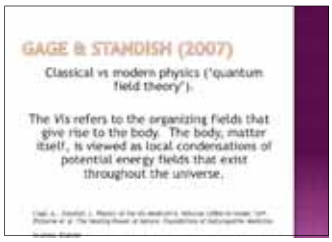
It's in kind of two parts. The first part is the profession speaks. I'm going to give you quotes and some in particular some pretty extensive quotes about what people say about us clinicians. What is the *Vis*? Then I'll talk about my perspective on it and I think I am going to surprise a bit of you because those who know me know that I am very much left brain, very rational so I'm going to give you a very biological approach to it. I'm also going to give you a metaphysical, cosmological maybe even humorous perspective of what it might be. And then because I believe that any theory is only as valid as its ability to produce change, and Dr. Coulter, I thought presented that very well. I'll talk about how I think you could change this definition of the *Vis* based on the three different models I'm going to show you. So it's pretty interesting.

But before we start, I'm reminded of a conversation I had back in the early 70's when I was a student in naturopathic medical school and I was also working at the University Of Washington School Of Medicine doing research. So it was kind of an interesting dichotomy because I was working with MDs, and PhDs doing medical research and they thought I was crazy. They said how can you—such a logical, intelligent, scientifically based person—be over here with these fruits, nuts and berries guys? So we had a lot of conversations and of course we never convinced either of us on one side or the other. But there's one conversation that actually ended the debate. And I said to him, "You know I firmly believe the body has a tremendous ability to heal itself and my job, as I'm learning as a doctor, is how to help the body do that."

He said, "No, the body makes mistakes. Our jobs are to fix the mistakes the body makes." And we never







had another debate because we are so diametrically opposed in our fundamental belief in what the universe was about that there was no place to go.

> "Our jobs are to fix the mistakes…"

So, onward. First, I want to talk to you about the Foundation of Naturopathic Medicine project. This is interesting. This started as a chapter in Mark Miccozzi's book on alternative medicine. I wrote a chapter for it a couple times on 'What is Naturopathic Medicine' and I've done this for a bunch of books. And I decided for one of the updates second or third edition to invite my friend Dr. Pamela Snyder to update the chapter to make it a little more current. And then after that we were approached by Elsevier, who said 'Why don't you convert this chapter into a whole textbook.' And of course Elsevier wanted to do that with me because, as Rob mentioned, I'm a senior author of a book called the Textbook of Natural Medicine which had 70,000 copies sold worldwide; is one of the most well received books on science based natural medicine and it made them a lot of money so they wanted me to them another book. So I said 'Pamela let's do this.' And Pamela said, 'You know, you and I shouldn't be the ones deciding what is naturopathic medicine.

We should invite in the profession.' And do any of you know Pam Snyder, Dr. Pamela Snyder? Okay. Well if you know Pamela Snyder, I shouldn't have said yes. Well, maybe I should of. But anyways, if you know Pamela Snyder that means if you're going to invite in the profession you're going to invite everybody. So now here we are, one hundred authors from six nations getting together to write this definitive text book about naturopathic medicine. And of course, most of it is 'What is the *Vis*?' What is the healing power of nature? How does that actually manifest into real clinical practice? How do you diagnose based on that kind of treatment, treatment concept?

So there we went off and we've begun a journey. As you may know or you may not know, naturopathic medicine pretty much died out in the late 60's, early 70's. When I was a student of naturopathic medicine there was only one school left in the whole country and two years before I entered the school, back in 1971, they had no students enter the school at that year. So you could say the profession pretty much died. So what happened is there is this missing gap. There's this gap. And that is the old timers, nothing between and a bunch of us young guys. All the old timers were dying off. So, while there were some books about early naturopathy and the *Vis*, the reality there was relatively little transfer of that from the clinical perspective. So now we are in the midst of regaining the wisdom of our elders. So that's what the Foundation Project is about. Two years ago, almost two years ago to this day as a matter of fact we had a conference in the southern part of Washington state and we invited all the authors to get together to discuss this. So you had a bunch of panels where we had people talk about 'what is the *Vis Medicatrix Naturae*?'

So if you look at this panel, unfortunately it's not showing everybody here. This is Stephen Myers from Australia. And he's an interesting fellow. He went and got his naturopathic degree. And then he went and got his MD degree. And then he went off and got his PhD because he said 'Well, you know I really believe natural medicine but no one's really going to believe me in the political sense until I got my MD degree. And then he got his MD degree and then he realized he didn't really understand research so he got his PhD. So he is now the major consultant to the government on health care reform in Australia, so that's great.

Leanna Standish PhD, MD, Masters of Acupuncture. Again, broad perspective. I forget this woman's name, she's a PhD or researcher. Wayne Jonas, MD. So fascinating panel, one of many panels. And lets go on and see what they've learned.

So we look back at the beginning of the profession, Lindlahr, one of the early teachers and developers of the profession, defines the *Vis* as "the power possessed by the human body of resisting disease and restoring health. The primary force of all forces covered from the great central source of all life and expression of divine intelligence." Now some of the language is a little bit archaic but I interestingly enough I don't think our perspective has actually changed all that much in these last one hundred years almost.

what is the *Vis Medicatrix Naturae*?

Jared Zeff and Pam Snyder in 1989 developed an official position for the American Association for Naturopathic Physicians and they said, sorry if I'm doing some reading here but I want to get them right, 'The healing power of nature is inherent, self-organizing and healing process of living systems which establishes, maintains and restores health. Naturopathic medicine recognizes this healing process to be ordered and intelligent. It is a naturopathic physician's role to support, facilitate and augment this process by identifying and removing the obstacles to health and recovery, and by supporting the creation of a healthy internal and external environment.' That's kind of wordy and also worthy too. But it's based on this fundamental concept that the body has tremendous ability to heal and our job as doctors is to remove the obstacles to healing. And that's the scene that comes up recurrently in naturopathic philosophy and practice.

So Leanna Standish simplified it quite a bit and said in 1989 '*Vis Medicatrix Naturae* (or VMN) equals the inherent organizing principle of living organisms.'

Eric Yarnell—now those who know me know I'm very left brain—and Eric's one of my very bright students and he really thinks like I do. 'Naturopathic medicine does not require a spiritual explanatory level. The *Vis* is the result of natural selection and evolution.' Okay, so a couple of the models I'm going to give you for what it is fully embrace that particular philosophy.

Carlo Calabrese, another one of our researchers, in a fairly neutral way said 'the motive, plan or spirit animating mind and body expressed as a physiology functionality and adaptability.'

Gage and Standish in 2007 tried to merge classical and modern physics quantum field theory said that '*Vis* refers to the organizing fields that give rise to the body. The body matter itself is viewed as local condensations of potential energy fields that exist throughout the universe.' That's getting kind of metaphysical there but I think it's pretty interesting.

Bruce Milliman: "the healing power of nature refers to the 'animating life force.'"

And Bill Mitchell, I'm going to talk a lot about Bill Mitchell, "the '*Vis* is an equation." The result of the harmonious balance functioning of all systems at all levels." So I want to talk a little bit more about Bill. Bill passed away two years ago just before we had our Foundation's international conference. Bill was a co-founder with me of Bastyr University. So while I was out there making the world safe again for naturopathic medicine, Bill was at home at the University thinking deeply about philosophy and teaching students and helping them understand the true meaning of what it means to be a healer; what it means to support the *Vis*. So the next few slides I'm going to show you are Dr. Leanna Standish's efforts to extract many, many pages of Bill's theory and teaching into some statements. And I like to say I wish Bill was the person making this presentation today because he would do a better job than I.

Okay, the *Vis Medicatrix Naturae* (or the VMN, so I don't stumble over it too many more times) equals the healing power of nature, the self-organizing property.

Okay, so I'm going to read four slides to you, and I apologize for that in advance. But there's a concept here he has which I think is pretty interesting and I hope I can convey it effectively. "The VMN functions in any given living system as a tendency to organize that system so as to maintain existence. The *Vis* is universal. A fascinating assumption…is that life on other systems contains an internal intelligence for self-maintenance as well, meaning that the *Vis* exists universally and is a cosmological reality.'

> t he healing power of nature refers to the animating life force

It goes on to say, 'the *Vis* is not weakened or strengthened by weakness or strength of the individual. The *Vis* exists internally and universally. This is best thought of as an equation that exists during the life of a system. And while the inputs into the equation can change the value of x, y or z, the equation itself exists as a structure in which these values interact with each other.'

'The *Vis* is an equation. For example, force equals mass times acceleration. Both mass and acceleration can be changed, thus the force is affected; however, the equation force equals mass times acceleration does not change. It exists as a law of nature. In the same way, the healing power of nature exists as an eternal law of nature.' I'm sure Ian over here on the side saying notice I'm mixing my terms *Vis* and Vitality and any part of nature and health and all those types of things. I acknowledge that weakness in my presentation.

'The *Vis* is an equation. That as an equation that can be changed, 'thus affect how strong an individual is or how long an individual lives…but the law of nature simply exists. The level of vitality of any part of the equation can change; however, the *Vis* is the equation itself.'

'Vitality is not the same as *Vis*. Confusion arises when one equates vitality with the *Vis*. The *Vis* is the framework in which vitality has significance. Vitality has no inherent value unless it can be integrated into the equation of the *Vis*. For example, a perfectly vibrant and healthy kidney that exists in a man who has just died from a heart attack.'

'The *Vis* is an equation. The *Vis* defines the effects of the variables with respect to each other…The *Vis* is the law defining the laws and rules and interactions of the aspects of all systems including the body, the mind and we may call the spirit. The implications are startling but made even more complex by the fact that the equations are evolving.'

So hypothetical equation for health. Healthy air, plus healthy water, plus healthy food, plus good friends, plus beautiful environment, plus adequate health care, plus meaningful belief system equals health. A lot to do there to make health happen. Again these are all direct quotes from Bill.

So an equation describing the potential to treat asthma is derived from the following physiological flow chart. So let's look at this basic information. So here you have phospholipids and the cell membranes. The cell becomes damaged. The phospholipase lyses the cell membrane and releases arachidonic acid, then through cycloxygensase and lipoxygenase, then goes through these inflammatory markers—which are mediators rather which then produce signs and symptoms of inflammation. You know heat, pain, swelling etc.

You look at the medical doctor what do they say, 'Oh, you have inflammation. Well let's poison this enzyme so that this inflammatory mediator is not being produced anymore. The body is making a mistake. It's producing too many inflammatory mediators. Let's poison the enzyme.' That's what most drugs are you know. They're enzyme poisons. Well, then the person

who practices natural philosophy says, 'The body is functioning properly and is producing these inflammatory mediators because of all these things you are doing up here that are making your cells more susceptible to damage. All the things you are doing to your diet that are causing imbalances between the omega-3 fatty acids which are your anti-inflammatory, the omega-6 fatty acids which are a pro-inflammatory; because the diet you eat are very low in flavonoids and carotenoids so the natural quenching parts that are normally that people should have when they're healthy they're normal quenching of chemicals aren't available so what's happening is the natural expressions of how you're living. Therefore you need to change how you're living in order for the information to go away.' So we can take kind of the medical philosophy. You can take natural medicine philosophy.

But the point that Bill makes is the *Vis* is the flow chart itself. So that comes up now to the definition of naturopathic medicine and the *Vis* according to Bill.

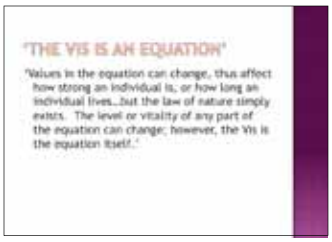
'The interaction of the body, mind and spirit functions within the matrix of very complex equations that govern the optimal practice of naturopathic medicine. Naturopathic attempts to both discover the nature of the equations the *Vis* and amplify the positive effects of the aspects of the equation. Amplifying the positive is the same as increasing the Vitality of the aspect of the equation.' So that's probably the most thoughtful evaluation of the *Vis* that anybody in the naturopathic medicine field has come up with so far. And I think it's very, very interesting. I don't know if it's right yet. I don't know if any of us is ever going to figure it out, but I think looking at the equation of the *Vis* I think are very interesting concepts.

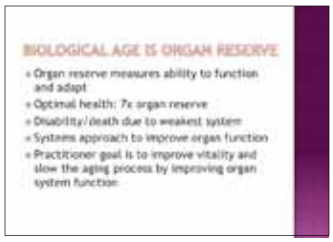
Okay, so Pizzorno in 2007, I was interviewed for a magazine. Now, I had some other quotes which are better than this one, but this one was the first quote so I thought I'd relay it. "So I've been involved in naturopathic medicine for 35 years and I still can't define it. Nonetheless, we can see the *Vis* in others. It is something we all sense. As a clinician, you watch the levels of a patient's vitality; when it increases, you know you are on the path to cure, but if it decreases, the you're only palliating symptoms and suppressing the individual's expression of the *Vis*."

> The *Vis* is an equation."

So, I was teaching class yesterday to my students at Bastyr University. I said to students, "How do you know you're giving the patient proper care? Well, is it because your symptoms get better or it's because their cholesterol level lowers?" Because you know most of the medical interventions that depend on drugs that lower cholesterol levels actual result in increased rates of mortality and morbidity in their patients. Statin drugs are the first of the anti-cholesterol drugs to actually increase longevity and decrease morbidity. So, if it's just decreasing your symptoms well why don't you go off and use a Vioxx. Vioxx does a great job in decreasing symptoms. The way you tell whether your therapy is truly curative or not is, is if the side effect of your therapy increased vitality of the patient. Because if it isn't, then you're actually just practicing the medical model which results in increased illness. So let's start pursuing this a little further. So now I'm going to take my typical left brain biological approach to the *Vis* and then I'm going to take the kind of more whimsical philosophical approach, cosmological approach and just see how we end up.

Okay, so could it be that the *Vis*, this vitality, this healthiness is simply an indication of organ function. We know that people with high levels of organ function, high levels of organ reserve have increased health and vitality and decreased resistance to disease. As a matter of fact they only get disease when the organ vitality, organ function has decreased.





So we look at that, we realize that we look at the organs in the body, look at the heart, look at the liver etc. When they're functioning optimally, they have about seven times more capacity then is necessary for average daily living. And so an approach is to take a systems approach to improve organ functionality. And the practitioner's goal, then, is to improve organ functionality which gives more vitality and gives longer life. So is that what this is all about?

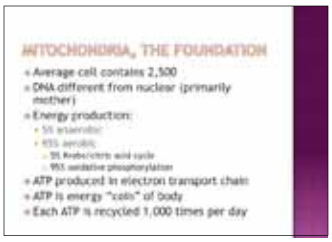
And if you look at the typical diagram here, you have a person with high vitality, optimal wellness, a person at death. What we have here is the *Vis* Medicatrix is always pushing people towards higher vitality whereas aging; stress, toxins, nutritional deficiencies, etc. are all always moving people towards dysfunction and death. So as you go from high vitality to low vitality and look at it for example from the cardiovascular system. High energy as a liver function. Some fatigue, more function loss. You have atherosclerosis. Now we angina so we lose more function so now a person can only walk a limited distance. And when you get below the minimum level necessary for life then we start getting heart attacks and eventually death. So a very straightforward approach.

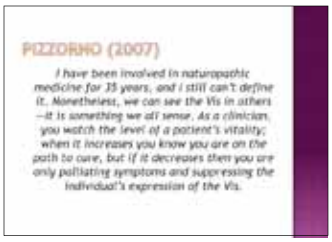
And so when I look at this, this is a class I've taught a lot called Foundations for Health. I basically say here's ten key systems of the body; we want to make them work as well as possible. We want people to have optimal nutrition and digestion. We want them to avoid toxins and when they dispose the toxins, we want them out of the body as quickly as possible. We want a strong and accurate immune system. We can't just have a strong immune system that's overactive because of course you get autoimmune disease. We want to balance inflammatory function.

> "How do you know you're giving the patient proper care?

Inflammation is not bad. Inflammation is how the body kills off invading bacteria. It's how it kills off cancer cells. It's how it removes and replaces damaged tissues. Inflammation is important, but we don't want to have too much inflammation. We want a well regulated endocrine system. We want an ageless neurological system. You know now we live longer did we did in the past. Or now living longer is disabled with dementia in a rest home. I mean that doesn't sound very interesting to me. We want strong muscular skeletal structure. We want abundant energy production. My younger son—I mean my younger brother finally decided to get married and have children. And got together with me and my six sisters, our family of eight children. And he said, "Would you each make a wish for my daughter who will be born next month?" And you know my sister said 'purity and grace and nice personality etc., etc.,,." And came around to me because I'm last, I'm the boss, I'm the oldest, and I said, "Well, I hope she has a lot… a lot of ATP production, Okay." And everybody kind of looked at me, "Well, what's that about?" And of course I gave them a physiology lecture. And then finally living in harmony with the spirit or life force. So let me go a little further on that.

Could this vitality, could the *Vis* that we all talk about and we see in patients, could it simply be people that produce more ATP? Again, I'm being really reductionistic here. But when you think about it, all physiological function is a result of enzymatic activity in the body. All enzymes are depending upon ATP to function properly. There is a huge variation in ATP production. And ATP production is greatly modified by environment, diet, lifestyle, and supplementation. So is it really all about mitochondria and how well they produce ATP? So now you can see that I'm getting to the area where I have the greatest comfort lecturing. Okay, so a little side tour here and I'm actually pretty serious about this.





The average cell contains about 2500 mitochondria. Okay, now if you look at somebody who exercises a lot, like me I love to play basketball, and you look at somebody that is sedentary and you measure the amount of mitochondria in their cells, you know I have twice as many mitochondria than that person who is sedentary. So the DNA in the cells in the mitochondria is different than the DNA in the nucleus of the cell. And it primarily comes from the mother. So someone might recommend a person if they want the person to have higher vitality is to pick their mother more carefully. So ATP is energy production of the body and each ATP molecule is recycled about 1000 times a day. So that one ATP molecule is a thousand times a day helping an enzyme system work better. Unfortunately, the mitochondrial DNA is far more subject to damage than it is to DNA in the cell nucleus. And the reason for that is that we have all the energy being produced in the mitochondria which means a lot of oxygen going in the mitochondria. Some of the oxygen is leaking from the energy production. And also mitochondria produce ATP is by producing high energy electrons, so those high energy electrons are lost.

So it turns out that mitochondria DNA has 100,000 hits per day which is ten times higher than the damaging events occurring in the nuclear DNA. And unfortunately, the mitochondrial DNA does not have the repair mechanism that the cell or DNA have. So what happens is as people get older they produce less ATP because their mitochondria are damaged. And typically by the time a person hits 50, their mitochondria is so damaged that they will start leaking more electrons and more oxygen so the rate of aging goes down faster which why older people tend to have lower energy levels. So could it simply be that the reason we see vitality decline with age is not because it's mystical *Vis*, not because of anything other than their mitochondria becomes so damaged their enzymes don't work anymore?

So like I said before, there are things you could do about it. So we can actually change vitality as measured by people's energy by helping the mitochondria work better. And how do we do that? We avoid mitochondrial toxins. Optimize mitochondria function and we protect the mitochondria function and we protect the mitochondria from oxidative damage. Now these are all very, very interesting things.

> We want abundant energy

So a lot of our environment chemicals damage our mitochondria. Turns out a lot of drugs, prescription drugs poison mitochondria. Excessive arachidonic acid also poisons mitochondria. So people who eat a lot of corn fed beef which is very high in arachidonic acid are more rapidly increasing the way in which their mitochondria degenerates. And people who exercise excessively. So if you are out there running a lot of marathons. If you're not taking a lot of extra special attention to the oxidative status of your mitochondria, you'll burn out your mitochondria more quickly. And there is a lot of research about this that people who do long distance running actually end up aging more quickly and losing their energy production.

So if you want some reasons why we want to avoid drugs, I want to be real clear by the way, I am not anti-conventional medicine. Conventional medicine saves a lot of lives, but I'm anti-only conventional medicine. Because we need to have both systems, us vitalistic people and the mechanistic people, we need them together. So look at some of these things. Commonly prescribed things. Like people take themselves as well it's prescribed. Acetaminophen, aspirin, prescribed drugs like the anti-fungals; L-dopa; NSAID anti-inflammatory drugs, statin drugs—these all poison mitochondria. So here's a typical example. Coenzyme Q_{10}, and the way you know it works, I'm sorry, statin drugs, the way you know Stanton drugs works is that they poison an

enzyme called HMG-CoA Reductase. Because HMG-CoA Reductase is the enzyme that produces cholesterol in the body. Statin drugs poison this enzyme so that it doesn't produce as much cholesterol. Unfortunately this enzyme also produces coenzyme Q_{10}. Most of side effects from Stanton drugs is due to loss of coenzyme Q_{10}. And they get decreased ATP production. Lots and lots of data on this. Happily there's something we can do about it.

Good old ginkgo biloba. When you give ginkgo biloba and put it with mitochondria, mitochondria work better. But what's interesting about the work that we can do are some nutrients like alpha lipoic acid.

Alpha lipoic acid protects mitochondria from oxidative damage but it also results in improved functioning of the animal. There's animal research and is now starting to be reproduced in humans. So this is a measure of oxidative damage, chemicals in the mitochondria. And we look at oxidative damage in young animals and the lipoic acids make much difference. But you look at older animals to have a lot of oxidative damage in mitochondria and give them lipoic acid they start having less mitochondria damage.

Now does it mean anything? Well what they now do is what happens if you take a rat. You run it as far as it can and then you measure how far it can run. And then you give it lipoic acid. See how far it can run and what it turns out is that it can run further, the younger rats. But the same thing with the older rats, if they give them alpha lipoic acid they actually double the distance they can run because they have now doubled their ATP production of the mitochondria. When you add alpha lipoic acid with acetyl-l-carnitine the same affect dramatically increases in mitochondria production, that's what this is, it's the measure of mitochondria production. Take an old rat. Give them the alpha lipoic acid plus the acetyl-l-carnitine and it produces as much mitochondrial energy as the young rat and when they making them run for distances, again they run longer distances.

A TP is energy production of the body

Coenzyme Q_{10}. There is a direct correlation between mitochondrial coenzyme Q_{10} produced by animal species and the longevity of that animal species. Same thing, we give older rat coenzyme Q_{10}. Older animals they have increased mitochondria energy in their ATP production. Resveratrol does the same thing and Ribose does the same thing. Okay, now I've finished my comfortable part of my lecture.

Okay let me go back now into one of the more mystical parts. So let's think about the *Vis* as consciousness. And think of *Vis* as our expression of a universal consciousness. And life is a manifestation of *Vis* in a biological structure.

So if life is a manifestation of the consciousness of the universe, is the case I'm trying to make. And the reason I'm saying this is because if you look at physics, and I've had a lot of physics training, if you just looked at physics, the world of physics, all energy runs down hill to waste, waste heat, energy. You've got the stars, they blow up and produce a lot of energy, produce a lot of elements and such. And eventually everything in the universe runs down to heat.

Life is not logical in a universe ruled by entropy. If everything is going to waste heat, why do we have life evolving? It doesn't make sense. Something is causing energy/matter to improbably organize into life. So, I'm making the assertion that *Vis* is the life force, it is the consciousness of the universe manifesting as life. Now, is there any way we can measure it? Anything we can learn about the *Vis*? I like to talk here about the brain waves. I suspect I'll be talking about things today nobody else is going to be talking about hopefully.

Almost everyone would agree that the Zen/yoga masters have advanced consciousness. We all treat them with respect. And research has shown that these masters of meditation, when you look at the brain waves of the brain, if you look at kind of the average person, they are primarily having what are called beta waves in the brain. This is basically when you do a lot of thinking. The monkey brain. The little talking you hear in your head and such. These are all beta waves in the brain; high frequency beta waves. But when people start meditating, they start producing more alpha waves. Alpha waves tend to be associated

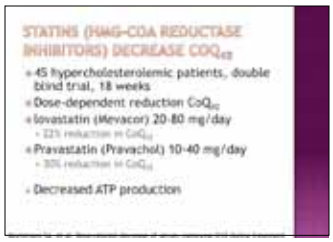
> Is it simply all about mitochondria?

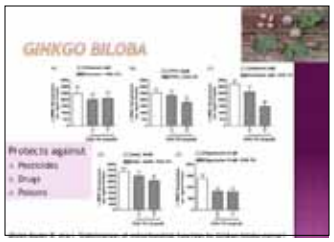
with consciousness, with relaxation, with reverie and things of that nature. The more a person meditates the higher the amplitude of their alpha waves and the more time they spend in alpha waves when their eyes are closed. The good thing about alpha waves is that they only happen when your eyes are closed, because you don't want to be day dreaming when your eyes are open. So not only do they get more alpha waves, higher percentage of higher intensity, but in the four regions of the brain, the occipital, the central, the temporal and the frontal they start all having alpha waves at the same time. And then the more advanced ones start actually matching the left side of the brain with the right side of the brain's alpha waves so the whole brain is now resonating at the same frequency. The more, and the very, very most advance ones, when you think about waving like this, that actually the wave is going up and down at the same time, and all the lobes of the brain at the same time, all eight lobes of the brain at the same time.

So what affects alpha waves? What suppresses alpha waves? Anxiety, anger, depression, fear, rage, alcohol, caffeine, nicotine and onions and garlic. Okay now, I know this last one—I probably had you all up to that point until I got to the onions and garlic. Okay, so it's interesting, if you talk to people who meditate seriously, the yogis and such, what do they tell you? They don't eat onions and garlic because it messes up their meditation. But I'm not saying onions and garlic are bad for you although I am personally allergic to garlic so it was easy for me to write that. But, it's interesting these things suppress it. What increases it? Feelings of well-being, forgiveness, happiness, joy, oneness, trust, and trust in others. So if you look at this, clearly these are things which we associate with people of greater consciousness, greater humanity. The people we tend to say this is a more evolved human being. And this, people who have these things control themselves, we say these are people who have more trouble, and we may say these are people are less connected to the *Vis*.

Now it turns out, you can do biofeedback and actually change the wave manifestations in your brain. The way you do it is you sit in a dark room and you listen to sound tones with your eyes closed and every time your brain, the globe of your brain goes into alpha you hear a sound tone. And the more alpha, the higher the tone. So you have a different tone for each part of your brain. And a different tone when all the sides of the brain start to line up. So when this is done, what you see, and this all hard research done by a guy by the name of James Hardt who's been doing brain wave research now for about 35 years, lots and lots of publications, fascinating guy. What you find is an increase in IQ of 11.7 points. An increase in creativity.

So people who are artist blocked and such could now go back to their writing, or their painting or their sculpture or whatever else they're doing. You get measurable increased improvements in physical health. You get improved mental health and relationships with other people improved. There's an increased resistance to stress. And they all reported greater consciousness and spiritual awareness.





So I'm wondering, are alpha waves a manifestation of our synchronization with the consciousness of the universe? Are alpha waves our way of measuring our connection to the *Vis*? I don't know, but it's an interesting thought. So in conclusion, more wisdom from Dr. Leanna Standish. 'Naturopathic medicine distinguishes itself philosophically from mainstream medicine by its core principle *Vis* Medicatrix Nature, the healing power of nature. Its insistence on referring to the vital force has served to isolate, and perhaps sideline, naturopathic medicine from mainstream conventional and pharmaceutical medicine of the second half of the 20th century, which has been historically driven exclusively by on scientific materialism.' I know there are a lot of chiropractors in the audience today, doesn't that sound kind of familiar?

Okay, Dr. Standish concludes, 'However experimental findings from quantum, mechanics and physics, neuroscience and the distant healing literature suggests that scientific materialism is an incomplete description of reality and thus could not be the sole philosophy of modern medicine. The findings of the new science support the new concept of biological field affects, macro-entanglements, non-local interaction, and downward causation. A new medicine is emerging in the 20th century.' So let me tell you about a research study that Leanna did at Bastyr in conjunction with the University of Washington medical school.

She got together some neuroscientist and said, "We think that healers have this ability because of their intention to change the health in other people." And we think about the *Vis* and do they have some way of helping another person connect to the *Vis*. So being a research scientist, she said, we'll start something very, very basic. Can we have a person sitting in one room affect the brain waves of someone sitting in another room? It's one thing to say, let's have somebody think and pray about people getting less cancer. Okay, kind of hard, long term affects maybe complicated by various other factors. Let's do something very simple, let's just look at brainwaves. So what she will do, she'll have a researcher, would have a subject in one room with a helmet on with the various electrodes measuring the brain waves, and another person in another room 20 feet away.

Multiple walls in between them. No way whatsoever for them to interact. There's no interaction whatsoever and she'll show on the screen violent images. Lots of things going on. And at the same time measure the brain wave patterns in the person in the other room. And so the person in one room with the images was suppose to be thinking about the other person.

And every time the images came on that were violent and flashing stuff there were change in brain waves of the other person. So clearly demonstrated the ability of that person's changes in their brain wave consciousness have an affect on the other person. Of course that doesn't prove the *Vis*. It doesn't prove intentional healing etc., But it does say there is some interconnectedness and I would hypothesize and assert that there is this consciousness and we're all manifestations of this consciousness.

So what do I say today when people ask me what is the *Vis*? *Vis* is the manifestation of the universal consciousness in biological form. Our environment, beliefs, interactions with others, actions, lifestyle, diet etc. modulate the manifestations of *Vis* as our vitality but *Vis* itself is immutable. As we harmonize with the *Vis* our consciousness expands. Thank you for your attention.

Rob Scott, DC PhD

Thank you, Dr. Pizzorno; we appreciate that.

So I was listening and reflecting on what Dr. Riekeman said this morning, and I think one of his questions was that as we explore these fundamental questions of vitalism, we have to ask 'what is the nature of existence?'

I have to admit that as a physiologist if the nature of existence is to solely burn oxygen to produce ATP, it's not a real motivation to get up in the morning! I was happy you moved on with that. But what was also interesting to me was the concept of the *Vis* as a law of nature, an inherent part of nature, which I thought was a fascinating way of looking at this.

When you talk about equations with multiple factors—and it was nice to see those factors being more than biological; it was the social systems, it was friends, the environment. Those things affecting the expression of *Vis* as you termed it, I found that very interesting. It was interesting because what it showed for me as we started talking about this concept of vitalism—again in the topologies of things like systems theories and other perspectives, we're talking about an interconnectedness, an interrelatedness, and an 'interdependent-ness,' of everything.

So the concept to take that abstract that everything is interrelated to everything, for me is not a big leap to say that alpha waves are our connection with the conscious universe. Because, again, it is a systems approach of looking at the interconnectedness of vitality. So I appreciate your comments very much, Dr. Pizzorno. Thanks for being with us today.

William Morris, LAc, PhD Vitalistic Philosophy – Acupuncture/TCM

Yin and yang oppose each other. They define each other by oppositions and so materialism and the vitalism oppose each other. Yet at the same time materialism and vitalism are generating each other. They're consuming each other and transforming each other.

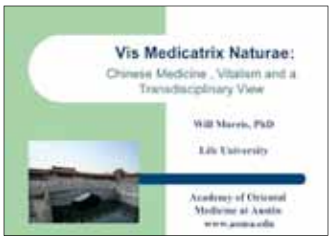
I'd like to start the day off talking a little bit about [the fact that] we're dealing with some complex issues with respect to the notions of materialism versus Vitalism. And I'll like to promote a notion of transdisciplinarity and complexity with respect to how we embrace the concepts.

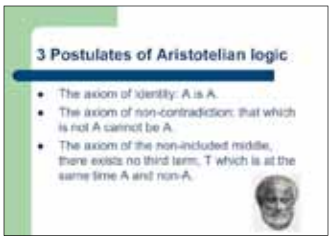
And for Chinese medicine this whole game starts with the Dao De Jing, our early course work for all practitioners, this discussion about the Dao giving birth to one, one giving birth to two, and two giving birth to three and so forth. The ten thousand things is very closely associated with epistemological methods within any culture and where we draw a line and make a distinction and this distinction becomes the reality that we're addressing. And so Chinese medicine is no different in its approach to developing the concepts. And so what I'll like to do is talk a little bit about paradigm transformation.

How are we moving out of paradigms and into paradigms? And if we can identify the isomorphic features as common features between the contrarian issues of dualism-based issues that we face. We may be able to find some kinds of solutions through inquiry and communication on those bases. And the roots of what we're dealing with here comes from Aristotelian logic. The axiom of identity that 'I am me and you are you.' And that there could be no contradiction with that. That 'A' can not be 'A.' And also the axiom of the unincluded middle. Which is there is no third term 'T." Which is as the same time 'A" and non 'A.' And turn it around and look at it from a transdisciplinarian point of view with respect to some of the work that a physicist named Nicolescu has promoted.

We can start out with an ontological axiom. There are different levels of reality of the object and correspondently different levels of reality of the subject. And the logical axiom, the passage for one level of reality to another is ensured by the logic of the included middle. So this is distinctively different. That we could actually embrace a logical middle point which is inclusive of the two opposite poles of same of materialism and vitalism. This epistemological axiom, the structure of the totality of levels of reality is a complex structure. Every level is what it is because all levels exist at the same time.

And there are some other features of this whole approach or this particular worldview of transdisciplinary thought. The features include the fact that it is inquiry driven. That it develops pertinent knowledge for the purposes of action. It's very action based. It fits very closely with Chinese medical thought. And one of the things that I found very interesting about this particular course of study is that Chinese medicine has included middles. Qi, Yin and Yang, and how they get embraced or how they





unfold into levels of three. And we'll talk about these. Anyway, there's also a metaparadigmatic construction of knowledge. And so what we are looking at in a metaparadigmatic point of view are those features that are isomorphic between various paradigms. And common features.

Where are the common features between this point of view and that point of view? We use this a lot in organizational development. We find a place where we have common dialogue and then start building there. Where the unresolved differences are they get put into a parking lot. And this is part of the importance of connection and context. And what this does is this

> Where are the common features between this point of view and that point of view?

also places the 'knower' in the process and integrated with inquiry. And it's not so much in the scientific inquiry that we're assuming that we are separate because it is all subjective. In essence, the objective data has been collected on the basis of selection. Not only that, it's interpreted on the basis of selection so the positive is that the entire endeavor of scientific inquiry is a subjective phenomenon at its root. And in the Charter of Transdisciplinarity the World Congress of Transdisciplinary in 1994 reasserted that the reality is multi-referential and multi-dimensional.

So what is true at one point for one perspective is not true at another point of perspective. So here we are engaged at a level of relativism, we have to expand out even further because we can say, 'well against relativism are there are universal principles.' Certainly, someone argued in medical ethics that there are.

And as we begin to find a language for this process, we've heard much of it. Systems theory, we're dealing with closed systems, open systems. Chinese medicine at its root is eco-psycho-social in its manifestations.

And when I say 'eco,' those ecological systems are at the interior the individuals as well the environment in which they are operating. And so this eco-psycho-social open system also can be observed in terms of closed systems. And treatments or interventions operate with various levels of expanding and contracting awarenesses of those various systems. And that's part of this complexity. This ranging back and forth between these various dimensions. And throughout this process, Chinese medicine adopts the metaphor of channels and this is coming from an agrarian culture with waterways and so forth. And So much of the technology at the time was dealing with water supply for agrarian means and needs.

And so the channel system, but also just after the warring states period, the development of common scales, weights, measurement systems but also the size of the wheel length for travel between the various provinces of China was standardized. So we now have a common road system so the metaphors were mapped onto the body in terms of channels. Those metaphors worked. They worked then and they work now. But we could also use other metaphors such as neuroanatomical bases of acupuncture or other biological bases of acupuncture. In any regard, what's occurring along these vectors of metaphor, whichever we choose to use, is some form of information.

And so here is that character Qi. These lines on the upper end here, first recorded in Shang and Zhou dynasty bone inscriptions on scapulae. They'd draw these inscriptions and then they'd burn it and then there'd be a crack through there. And they used that to determine the course of war, peace, social events, medical interventions and so forth. Nonetheless, those lines were indicative of a term called, we might call 'vapor' today, and this vapor could be seen coming up off the ground as the sun starting to heat the earth up. We see it laying low in the hills and so forth. Early forms of vapors. Early Chinese medicine considered some

of these connected to spirits, ghosts, ancestors, and so forth. Particularly in the mountain regions, there would be a qi or a spirit of the mountain. And so as it came forward in time, these notions got converted into more humoral distinctions such as wind, cold, damp, heat, and this type of thinking. So it's getting more and more reduced into to a more material type of a form that can be dealt with rationally. Well, just so happens those concepts of wind, damp, heat, and so forth, continue forward to today and they are used for organizing the pharmacopeias. And so, if we say that 'there is a diagnosis of wind, heat,' this could include conditions such as rashes, or infections, events taking place on the surface and changing rapidly and quickly. In either regard, it takes us to that particular construction of the symptom-sign complex. It takes us to a class of agents that we select in order to engage in an intervention. That intervention might be homeopathic in nature or it might be allopathic in nature. In other words, it may be by opposition. Typically, if there is wind we're going to clear the wind out of the channel pathways and that's a treatment by opposition. We're going to relieve dampness and heat. There's infection with swelling and so forth. We'll use those agents to resolve that as well.

But on occasion, we're interesting in addressing how the physiology is responding to events. Or there's what's called a 'doctrine of correspondences,' where everything is lined up and we are causing a movement in a certain direction with a high level of coherence. So this is a part of the complexities and nuances in the way that the Qi flows. A little bit later you'll see the cross right there in the center, significant of a plot of earth and the lines coming out of it are much like rice coming up. So there is an etymology of the character Qi. There's many other ways of describing this character Qi. But we'll leave it there for the moment and take a little bit of a look at…contemporary Chinese medical practices as they're taught in the mainstream.

TCM Universities of China considers Qi to that it protects, it transforms, it holds, connects and warms the body. That's how we know that the Qi is functioning well. If there's, for any reason, a lack of capacity with any of these particular features then we start to consider that there may be a depletion of Qi for this particular individual. And if that's occurring, that takes us directly to a class of agents which are called 'Qi supplementing agents.'

> So it leads them directly from a set of observations to a set of conclusions

Now, Chinese medicines filled with these a priori statements of fact. And one of them is that blood is the Mother of Qi and Qi is the Commander of blood. So what'll happen is a practitioner will also be giving those agents which supplement the blood at the same time as they give agents that supplement the Qi. So it's very pragmatic. Even though there may be these humoral archaic forms of building knowledge, the medical epistomology of Chinese medicine is coherent. It's cohesive within its in its own systems. So it leads them directly from a set of observations to a set of conclusions about those that are built in to a theorem of what's occurring for the patient and that's built into a treatment.

And we say Qi as opposed to energy and this distinction has are already being made. This is not a physical quantity describing the amount of work that can be performed by a force. Although I have to say in diagnosis, if the pulse lacks force and amplitude this is one of the more clear indicators of depletion of Qi. Maybe it is ATP. Possibly. Anyway, an attribute of objects and systems that are subject to the conservation law forms kinetic potential, thermal, gravitational, sound, light, elastic, electromagnetic energy.

The ability for the digestive system to transform foods into usable energy is an example. But also the transforming power of Qi is the ability for individuals' biological and social systems to change. Thus the word 'energy' becomes misleading as an overall for Qi which embraces a complex network eco-psycho-social systems. Such properties include psychic, emotional, spiritual, numinous and mystics states as well as social, biological and ecological systems. That's Short's 1985. I talk a little bit about the different forms of Qi.

Qi derives from one's parents, we can call it yuan chi (qi). This is a source Qi. There's different, the concept of source Qi has different frameworks. If we look at some of the Qi Gong schools, there's this notion that there's this cosmic sort of center from which everything evolves. And we'll say that's the Dao. And that was that image that we began with the Dao. And this becomes inherited; so to say it's a genetic potential. And we could say that it's constitutional. This yuan Qi. thus describes the essence transformed into the Qi. It's a dynamic and rarified form of Qi having its origins in the kidneys. So between these kidneys there's this set of points that are called the life gate. Some people translate it as 'the gate of destiny.' And part of that has to do with the genetic potential that is inherited from the parents.

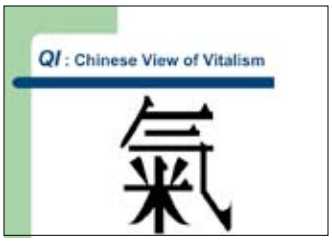
It's source qi. This source qi includes yin and yang and we'll talk about yin and yang in a moment. I'm relatively certain that many people in this room have a good deal of familiarity with those two words. The notion of yin and yang splitting out there's this combustion. It's a zero point field in essence. These reverberations begin and at that level of potential it's a still a… state. It's still source at the level of source. And as I'm talking about this I want to recognize fully that this is an abstraction. And it is an abstraction that leads to pragmatic practical applications in the clinic. So the yin and yang divide apart nutritive and protective, the blood and the Qi. And see sophisticated practitioners of Chinese medicine are weaving this business of Qi and blood together in their practice. We can expand this though, so it's 'self/not self;' interior/exterior; dark/light; moist/dry; form/process; anatomy/physiology. And it's from a third place that we see this. It's macroscopic entanglement, the division of light into two variants; the complexity and the messiness of it.

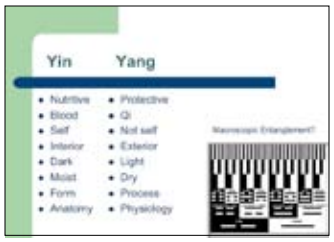
You know, we can both see this a senior practitioner in their eighties sitting there reading in China. And ask them what they are reading; it'll be a book on yin and yang. While it seems very simple it can become very complex. And the way these particular nuances divide become the basis for clinical rational and clinical thinking.

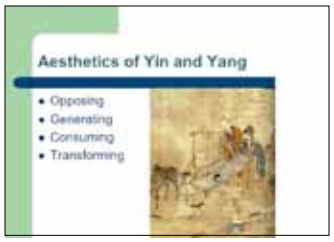
> While it seems very simple it can become very complex.

And then the aesthetics of this yin and yang, because on these polarizing phenomenon its an aesthetic judgment that we are engaged in. Yin and yang oppose each other. They define each other by oppositions and so materialism and the vitalism oppose each other. Yet at the same time materialism and vitalism are generating each other. They're consuming each other and transforming each other. And so when we see that entropy in to this mass of heat is the really the yin cooling agent has depleted. So we see that part of with the earth's weather changes. That there is a destabilization of the global homeodynamic systems.

So this business of Qi, yin and yang divide itself into protective and nutritive. So there's this aspect of nourishing self and also defining self in the social development. Socialization of children partly comes from defining boundaries. It takes energy to set a line with somebody. And probably I shouldn't be using the word energy because we're going to find that this is not energy. That's why in practice, Chinese medicine will leave the word Qi untranslated because there is re-







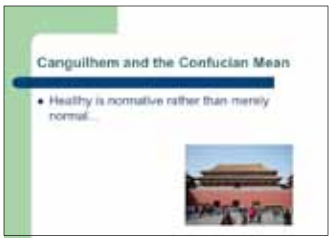
ally no useful term. Vitalism might come close. But anyway, this protective Qi complements and opposes the nutritive Qi. And circulates outside of the channels and it's rapid and it's oscillating and it protects from invading pathogens. And then the nutritive Qi, has an aspect of blood, construction, deep foundation. Now this nutritive qi is what's going through the channels. In a 24-hour period. There's a good deal of work on chronobiology in the practice of Chinese medicine. And this protective Qi and there's nutritive Qi are part of that.

This nutritive Qi, those little marks up on the top [of the character]. These little marks right up on top of the left character up there [represent] fire. They actually represent the sun. And the movement of the sun across the sky. It relates to the biorhythms of the Qi through the channels. And so, the morning about 3 o'clock it goes into the lung channel. And we use this for analyzing what types of conditions might be present. But it's two hours in the channel. So we're looking at that type of a temporal flow with respect to the signs, symptoms and manifestationss. Where as in the protective Qi, it's spinning around 25 times between morning and evening. And it hits 5 organs 25 times, it's one hundred and twenty-five points of different states of awareness; tension through this system. Now this is set of temporal distinctions set up about two thousand years ago. It's when these first discussions about this occurred. We have, you know, the Department of Chronobiology at [a] University, is really engaged in a little bit different types of process. So there are animal studies and they're testing pain on animals. And they're demonstrating 8 o'clock in the morning is a better time for acupuncture for pain for those particular animals. So we'll come back to this temporal domain.

In the process of creating Qi, the body has to create Qi. We're born with Qi this yuan Qi from the parents and then after birth this yuan Qi combines with a nutritive stuff from the gut and from the air. And so we can see Qi is air. Qi is the breath. But it's also the combustion that occurs in the gut and the life forces inherited from the parents. In this concept, combines in the middle to generate Qi, blood, nutritive protective Qi, and thick and thin fluid. Now, this seems highly abstract but the ability for the practitioner to understand what piece of this is out of alignment leads them directly to a formula. They may be using… an astragalus with cinnamon twigs and licorice root, in order to enhance the production of immune globulins.

It'll be the protective Qi coming out of the stomach, because the protective and the nutritive; the nutritive's traveling inside of the blood vessels. The protective is traveling outside the blood vessels. It's in the lymph system and it's in various connective tissues outside of the vessels. And then Qi is also processed by distillation. There's a continual process of separating clear from turbid. And I had one of my herb teachers very early on…said, "There's only two things you're doing with Chinese medicine. You're eliminating evil and benefiting the righteous." And herbal treatments falling from those two principles is true. It's either supplementing various substances Qi, blood, Yin, Yang; or we're clearing toxins or we can transcend all that to a higher level which is the superior grade of agents which has to do with something we're going to talk about in a moment. But here's the sequence, small intestine, large intestine, urinary bladder, gall bladder, liver; so we certainly have experienced treating chronic autoimmune diseases, chronic fibromyalgia, and various conditions such as that by using moxibustion in this particular sequence and/or needling in this particular sequence in order to stimulate the progressive separation of clear and turbid, which has to do with making distinctions drawing lines.

Here's a sundial from the Forbidden City. I was just in the forbidden city working with…University faculty in some of our collaborations.



But this was in Beijing in the Forbidden City, demonstrating the importance of time. In the total concept of Chinese medicine there is the concept of developmental stages, which is tied in with kidney essence and with the endocrine system. Slow, seven or eight year cycles. And then there's the seasonal cycles, then the channel flow daily; the slow ones through the blood vessels and faster ones outside the blood vessels. And what happens is these acupuncturists spot where the temporal flow is blocking up, and we just put the needle in there, into a point which I call a 'chronotope.'

'Chronotope' comes from Russian literary conventions, but the chronotope here is a place on the body where there is an intersection between time and space, where time and space can be interacted [with]. And this comes from early dynasties' ways of organizing the sociopolitical environment where the South is fire; the North is water, and there are these directions and these times in the Kingdom for performing everything properly. Well, about two thousand years ago in the Han Dynasty all that thinking is converted and medicalized, into a protoscientific model. I say 'scientific' because it is abstracted, the application of these elements over the phenomenon, are used to interpret and condense the phenomena into meaningful sets of data that can be used to develop treatment.

> w e have Three Treasures, which are qi, spirit, and essence.

So, but here we can say the elements are located on the channels, and they progress according to the same flow as the seasons. And so they're used to treat problems such as seasonal affective disorders and so forth. Highly abstracted, and at the same time effective, on occasion.

Now, coming back to the point of three. The paradox of the situation is that we have Three Treasures, which are qi, spirit, and essence. This is one of the first ways I was trained. I was not trained in remedial practices in Chinese medicine early on. I was trained in the Daoist system of cultivating the Three Treasures, the spirit, the qi, and the essence. And we can discern the status of the status of the qi through the skin, the flushed cheeks, etc. The spirit is discerned through the eyes, the way the light refracts in the eyes and the overall qi of the person. The essence is determined through the bones, the thickness and heaviness of the bones, and also through the cartilage in the ears—are places where one can immediately assess the essence. What are the agents that supplement the essence? Turtle shell. Salty, animal-based products. Deer antler. These types of products strongly supplement thick fluids—the essence, and so forth.

And so if an individual comes in and their yuan qi is weak, their 'protoplasm is poorly put together,' not a strong constitution, then we're going to use those types of materials. And at the level of spirit, we'll use probably five phases for assessing.

In chapter 72 of the Spiritual Axis, which is one of the Yellow Emporer's classics. This was first compiled right around 200 A.D. There is a discussion about twenty-five types of human. And these twenty-five types of human are aggregated as the phytotype, each of those others are subtypes. So that's how it organizes. They're already involved in kind of like these concepts of holism, cascading in and out self replicating systems and we see it here. And so we can use these five elements, to diagnose, the basic…spirit. And [for the]constitution it makes the distinction here, constitution at the inherited, genetic level; constitution at the level of consciousness, identity, sense of self, and also acquired constitution. How those two other aspects are affected by the events during the course of life and also stages.

So we're going to return back to Chinese medical epistimology, the data collected both subjective and

objective usually through clinical means. Observation, smell, sounds, odors, right? Once this data is collected a model for analysis is selected. Now a practitioner may be already into certain paths—forms of analysis but there are about ten or twelve different models for assessing. For instance, if it's an infectious disorder, they'll use a model which looks at how disease transforms quickly and it's divided into six stages. Where at first there will be the engagement of neuroepinephrine and various stress moderators. Then as those are secreted into the blood stream the blood flow and gut tract starts to slow down. And then there is reduced gut tract, temperature dysregulation. So it progresses down through then to more serious disorders all the way to death. So that's one model. Or a simple model Yin and Yang differentials.

Also internal medicine where each organ becomes a pattern for identification. And in Chinese medicine, the disease is identified and then also a pattern. So a person may have asthma but the asthma may be due to kidney qi not grasping and so there is a qi that is present in each of the organ that enhances its functions. From identifying the disease and the pattern a treatment blend is created and the treatment is constructed and then reviewed. In my practice, I'm looking for very immediate recursions with the system right before me. So, if I'm feeling a pulse or I'm seeing signs on the face, I put the needles in. I expect that to change. I expect all these presencing pieces to give these signals that there's something real occurring. And so some of these models adjust the physiological response to the disease process. Others, certain agents will actually address the microbes and kill the microbes. This is the same as the Confucian mean.

In Chinese medicine there's really two courses. One is the Confucian, which has to do with the protection of qi and conservation of qi through behavioral means. And then also the notion that one can't control what it is that's going on. And this comes more from the Daoist end of it. And so the Confucianists are the people who are using more of the acupuncture, and the Daoists are using more of the herbs and they occasionally convened.

And so we've talked a little bit about Qi and its evolution. Very briefly some of the more religio-magical types of concepts of Qi and down to the more material functions: holding, warming, transforming. In that transforming capacity, it's something that is not just gut related function or ATP cellular metabolism or transmission along nerve pathways. But it's also the capacity that the individual has to do make change in their life about circumstances that are occurring. So the Qi regulating class of herbal agents can be used for adjusting physiological responses but also responses within the psycho-social domain. And we also recommend transdisciplinary as a means of embracing both Materialism and Vitalism. Thank you.

Rob Scott, DC PhD

Thank you, Dr. Morris. I was struck—and maybe you were, too, trying to connect the pieces here. And what's become real to me, especially with acupuncture, is that there is such a distinctiveness in the terminology, and such a distinctiveness in the clinical application of acupuncture that I'm having a difficulty reconciling it in the terminologies of our Western approaches, and the terminologies as we think this through. This creates a fundamental problem for us, as we move forward. What also struck me as I think on a pragmatic level is that the East seems to have a much fuller appreciation of what we would call vitalism in their living and their lifestyles that is very organic. So perhaps there is a more basic, organic expression of vitalism in the Asian—particularly Chinese—cultures, but I was having a very difficult time expressing it from my perspective.

I loved the transdisciplinary views, the [ways of] connecting spiritualism and materialism, in that it's not one or the other, but a bit of both. I was also struck by the opposites, and the balancing, the adaptation ability of the qi to balance out the opposite effect.

I think that when we start looking at [these] health disciplines, a lot of what I am hearing is the paradoxical: the reactions from homeopathy, and whether it's chiropractic later on, whether it's the naturopath trying to get the body to the point of balance to express itself optimally; there's a sharing there. I believe it was Dr. Pizzorno who talked about increasing vitality. That when you increase vitality, you increase metabolism. And then we speak of qi, in terms of increasing warmth, and heat. And I'm seeing connections there from physiological expressions, as you increase vitality—whether it's qi, or increasing vitality as Dr. Pizzorno talked of it; it seems to be making sense to me on some level. So I really appreciated that presentation because it challenged me on a lot of levels—just what we were talking about this morning, on your listening, your biases, your positions, and how you view the reality. And it was one of the more difficult ones for me to reconcile within the framework of my cranium! I'm seeing people nod, so I appreciate your patience letting me 'intellectualize' through that.

Amala Guha, PhD, MPH Vitalistic Philosophy – Ayurveda

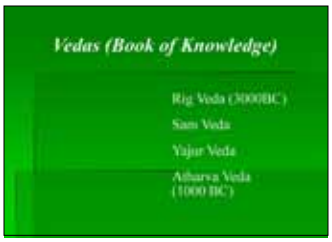
We are microcosms of the macrocosm. So if we [define] the macrocosm we also define ourselves. So the basic tendency of Ayurveda is to balance yourself through all [your] capacities in every way. [Ayurveda encompasses] the concepts of balancing yourself; if you can do that you will be in perfect health.

Thank you Dr. Bolles and Dr. Scott for inviting me to the fantastic symposium you have held here. And after listening to so many people I have come to the conclusion that I humble myself presenting Consciousness in the Context of Matter and Vitalism as presented by Ayurveda itself.

This is a beautiful institution! [on the slide] I come from, a place where it is -beautiful all around the seasons, especially in the Fall when it is spectacular. Vitalism comes from the base word vital and 'vital' and has a lot of various kinds of meaning: necessary, [indispensable] crucial, fundamental, elements and central; and I'm taking only these two components to expand my version of Vitalism. Elements and Ayurveda will be presented by five elements that constitute our constitution. And central to the theme is the definition of optimal health. I will cover briefly (a) an introduction of Ayurveda; many of you are not familiar with Ayurvedic Medicine or what Ayurveda is. (b) The philosophies that shape the tenets of Ayurveda and (c) the link between universal consciousness and so called individual spirit. Also [I will] define the perfect health, which is now in the dictionary of UNO as defining perfect health per se.

Ayurveda takes its root in Rig Veda. Ayurveda is one of four Vedas and it dates [to] around 3000 B.C. and it is probably the oldest version [of this knowledge] in the world. It has evolved over time and became a corollary to Athara Veda about 1,000 B.C. India… [constitutes] the origin of the world's oldest health care system. India at that time included Pakistan, which involved the entirety of Afghanistan, all of Pakistan, Nepal and Bhutan, also part of what you call Tibet and of course not to forget Sri Lanka,were all part of India. So [it all] was a terrain where evolved the Vedas, the ancient art of medicine. Of interest [is that Ayurveda was taught in] very prominent universities; [one was] housed in what is now called Afghanistan, at that point also part of India. And…the oldest physician dating around 800 B.C. was the professor of internal medicine in this university. Sushruta, the father of surgery, who lived around 700 BC, came from Banaras and was the… father of surgery. He not only did general surgery, plastic surgery, cauterization, transplantation and so called father of reconstructive surgery, -- were all done by him. He was also the father of dissection; he dissected the cadaver and [kept] it cool with wrap[ings] of KUSH grass, a special type of moist grass.

Another university, Nalanda [which] falls in today's Bihar was also a very well known university and produced many scholars. And in both of these universities[attracted] people came to study from other countries especially from the west and to Nalanda from the east. People from all over the world [came] to get educated. There were ten thousand students

who were housed at these universities and two thousand five hundred [faculty members] who taught them. Ayurveda has a great and very elaborate history and Ayurveda is written in Sanskrit. And it comes from the root word Ayush (a-ush) Veda. Ayush means life and Veda means science or life science or knowledge of life or wisdom of life. It has two aims: maintaining the health of a healthy person and curing the disease of a diseased person. So it has two arms: a preventative, which we call wellness or Swashvrita and the Chikitsa, or treatment scenario. Preventative Ayurveda or medicine takes root into following daily routine of proper nutrient, proper behavior, and knowing the self; mental and spiritual health which also involves many rituals. I will be talking about in passing, about meditation, exercise, yoga, and pranayama. May I be bold enough to answer [the] question [posed earlier] - doing hatha yoga does not necessarily make one [a] yogi and I will come back to that later on.

Now Chickitsa the treatment scenario [is practice] under eight disciplines: internal medicine (and remember Charak who in 800BC was the internist). This, Kaaya chikitsa ,focuses on all kinds of imbalances and is kind of a root treatment modality. Surgery (Susruta is the example and it took care of all types of surgery). ENT ear, nose and throat and eye which is called Salakya chikitsa, obstetric gynecology is call Prasuti, pediatrics is called Kaumarabhrtyam, psychology and psychiatry is a [large] area which also deals with the spiritual healing and its called Bhuta vidya.

Toxicology (Agadatantram) focuses [on] poisoning, snake bites, other kinds of bites, metal poisoning - etc. It also talks about the medical ethics as - jurisprudence. Rejuvenation or geriatrics (rasayana) gives kind of an understanding and management of aging. -Talking about the kama sutra, which is the big book of kama or sex that originates from India but unfortunately that is not the focus of Ayurveda. Sex or sexuality in Ayurveda is very different from the kama sutra.

Philosophy means 'love of truth.' Ayurveda has many philosophies but this is also very important for us to understand that there is a big marriage between so-called occult sciences and real sciences. Philosophy bridges them, so philosophy is not necessarily theology, it is really a science and even today the biggest or the greatest or most prestigious degree is Ph.D: doctor of philosophy. That means one who knows it all or knows the truth. So Ayurveda has a philosophy:

Hit ahitam sukam dukm
ayuasya tasya hit ahitam
Mananch tachya yatroktam
Ayurvedo sa uchayate

This is the philosophy of Ayurveda. Satvam Atma. Ayurveda is not only medical science, [but] it is the science of mind, body and spirit.

Satvam Atma Sharirach
Trayame tat tridandavat

Satvam the Mind; Atma, the conscious principle, and Sharirach, the physical body. It's the trinity of life, the tripod of life on which rests all activations.

This is infringed by environment, season, diet, lifestyle, behavior and emotion—all of which influence the cycle of life.

Now let's talk about the principles. How the Ayurvedic principles evolved. Rooted in Rig Veda (3000 BC), the concept of elements and concept of consciousness comes from Vedic laws of nature. Later on, these are the philosophies: Sankhya philosophy gave us the theory of creation, iconography, evolution and numerology and the concept of energy.

Naya/Valshashika gave us the reasoning, critical thinking and critical, so-called, reasoning, atomic theory, directions, substance, movement, sources and

source of knowledge. Mimansa contributes by spelling out social responsibilities and concepts of ashrams. Vedanta talks about matter and consciousness and involves self knowing or knowing of the self as the greatest kind of knowledge that brings peace within and peace outside.

Now comes the yoga and I will come back and talk about yoga and answer your question again, but it deals with the expansion of mind , control of organ, senses, awareness and asanas (which is posture).

Now we come to laws of nature and what consciousness is. Veda defines consciousness as Brahman, which means 'that which expands.' This also means Chid Akashi. "Chid" is 'awareness' and "Akash" is space, the divine space of awareness this was taken by Einsteinas ever-expanding universe: Brahman.

Brahman has three qualities. Sat means existence, Chid means awareness, Anand means bliss: 'a blissful existence of awareness.' This is the definition of Brahman. Brahman is ever-present, expanding, eternal; it has no time or direction. Brahman is the so-called Cosmic Intelligence. Brahman has two principles, Purusha and Prakurti. From the absolute energy evolves the potential energy and the kinetic energy. Purusha is pure consciousness; Prakurti is force of action. Unmanifested Prakurti has - three Trigunas, or qualities: Satva: the purity, clarity, love, compassion, and understanding. Rajas represents movement, temptation, aggression, judgment, competition. Tamas is inert, dull, sleepy, and depression.

The elements that are in so called Brahman are Panchabhutam. The Akasha, or ether, has properties of expansiveness, empty. Its subtle energy is sound. Vayu, air, is movement, dry & rough. Its subtle energy is touch. Tejas, or fire, is transformation, temperature, heat. Its subtle energy is form- . Jala, or water is solvent, nutritional, or nutrient. Its subtle energy is taste. Prithvi, or Earth, is hard, firm, grounding and its subtle energy is the smell.

All these constitute in us and that is what Sankhya's philosophy tells us. He developed numerology, iconography. Iconography gives energy to its field, and thus was formed the trinity of Hinduism. Hinduism is not a religion, it's a philosophy. Again the creative energy he called Bramha; the sustaining energy he named Vishnu and the destructive energy he named Shiva. So became the iconography or the so-called constitution of trinity of Indian religion.

The theory of creation is very important because Kapila in Sankhya's philosophy puts together the concept of consciousness as supreme energy and with the coming up with potential and kinetic energy together giving birth to Mahad, the cosmic intelligence which

This constitutes our physical constitution of mind body and spirit, the I of the self.

then drives into Ahamkara, a feeling of "I ness" or recognition of I-ness through which the mind became activated and the Satva, Rajas and Tamas are the qualities of mind. Through Satva we perceive the five senses and five motor elements function through Satva. Tamas is representative of five subtle energies and five gross energies in ourselves and Rajas is the bridge between Satva and Tamas. So Satva and Tamas can not move unless the Tamas is in activation.

This constitutes our physical constitution of mind body and spirit, the "I" of the self. The spirit is eternal, immortal. Mind is just a channel that channels the thought processes from Atman to the Sharira and Sharira means the body that decays moment by moment-that is the definition of the body. Now Panchabhutas are five basic elements are combined together to give us three dimensions of life or personality or constitution. Vata is representative of space and air.

Pitta is representative of fire and water. Kapha is water and earth. So all the properties we see are these elements: cosmic or cosmos or cosmic nature; [they] are in the form of these combinations,…created in us as our personal constitutions.

Now each has five sub-Doshas and I'm not going to go there because it would take an entire day to give you the physiological aspects; but the body is made of these three Doshas. Seven dhatus, that is, seven tissues; Agni, the metabolic fire; thirteen Srotas, thirteen channels for physical conditions or function.

Vata Pitta are important constitutional factors. Vata gives us the property of dry, light, cold, subtle, mobile, clear, hyperactive, forgetfulness. Vata people have dry skin, dry, constipated and by nature Vata people are very mobile so they are hyperactive, they are always fiddle-faddling with their selves if nothing to do, they are hyperactive. They forget things quickly but they also gain things quickly. Pitta people are hot, sharp, light, liquid, oily, bright, comprehensive, judgmental, and fiery. So by nature they have this hot constitution, they are judgmental, they are comprehensive, they are aggressive, they are brilliant people. But also some component of Kapha, are always present in them. Kapha is heavy, slow, dull, cold, oily, liquid, slimy, and static. So Kapha people are heavy in nature. They love to sleep. They love to eat. So these are some Kapha qualities.

Now mind or Manas, has…-- so called three Doshas are to the body so are these …to the mind. Satva contributes the cognition and knowledge. Rajas, activity and creativity. Tamas inertia and heaviness. So we are -- a beautiful blending of Satva, Rajas and Tamas– nothing is good and nothing is bad. Tamas is not bad and Kapha is not bad. Without Tamas we would not have sleep. Sleep is induced by the Kapha factor and the Tamas guna. So these become physiological components.

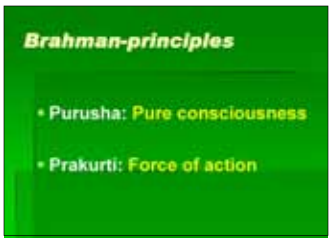
> *Kapha, Tamas*t hese become physiological components.

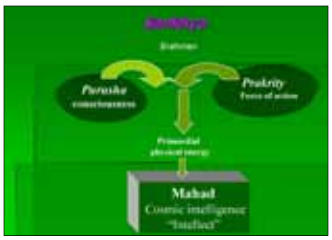
Now let's go to Naya's philosophy and see how that's integrated or taken [into] the principles or [elements of the] principles of Ayurveda. Naya contributed the rational thinking. Vaishashika contributed atomic theory which becomes the Panchabhutam and the properties of Panchabhutam–substances and properties [as] taste, fluidity, chemical interactions and actions and properties. They play a very important role in selecting out - herbs. Herbology is a [large] science in Ayurveda. It's not just taking one herb and giving it to all of the people. Herbology has pharmacokinetics, pharmacodynamics.

The absorption, the target organ, tissues, where it will effect or attack and then elimination from the body, these are all taken into consideration. The formulation of herbs is based upon one's constitution, the disease, and also other factors that come into play.

So formulation becomes a kind of science itself. It is not taking one kind of herb and giving it to everybody. Ayurveda is customized medicine. So Ayurveda says each individual is a unique individual; there is no other individual like you, and as a transplantation Immunologists I see this all the time. We can not match more than six locuses for any kind of transplantation [Bone Marrow]. So that tells us how unique we are. Mother to child transplantation, even from - brother to sister transplantation is not absolutely the exact kind of match that we see and Ayurveda addresses that.

Now this is very fascinating that Ayurveda brings all the subtle energies into the treatment modality and we see that connection. Subtle elements are not only applied in wellness to keep oneself well, but also for diagnostics and therapeutics. The subtle elements,





so-called form, touch, and sound, are applied in the diagnostic [process]. Darshan is observa-tion, which comes through sight. We start observing our patient from the time he or she walks into the door. How the patient is walking? How a person's gait is, if it's straight, tilted, walking firmly? What is the expression of the face? That all goes into diagnostics. Sparshana: we touch the patient, of course, during the physical examination. And Prashna, the questioning, which is sound, is also a principle of the application of the subtle elements. Questioning is very important and we do very elaborate questioning asking very personal questions some times and the reason is that we are trying to put the mind, body, and spirit together to see where the so called faculty of disbalance exists.

These are - eight ways we treat patients [on the slide]. The Daiva- Vyapasraya is the spiritual therapy that also involves mental therapy. Rational therapy is usually the simple diagnostic in doing rational therapy of surgery or formulation of herbal drugs. Internal cleansing which is called Panchakarma, we actually do (native language) that is emission; emetics and also so-called laxatives are used. The external cleansing of course is the massage and other things, then surgical interven-tions of course, is included.

'Pacifying Doshas' is one of the primary things and this is where Ayurveda is so subtle because while in western medicine -- we wait for symptoms to develop -- to diagnose. Ayurveda can diagnose at the very mo-ment when the Vata or the Pitta or the Kapha is disbalanced or aggravated. That means the disease has not even set in! And you are in a kind of a cusp, not feeling well and you don't even know physically that you are not well. And Ayurveda can -- put you back in balance so that the disease does not occur.

'Pacifying Dhatu'--Dhatu are the seven types of tis-sue, as I had mentioned, that are closely connected with the Doshas and…the metabolism, of course;… Ayurveda believes nutrition is the -- core of life. So whatever we eat becomes a very important factor in digestion, assimilation, and absorption to maintain our body. Also it influences our mind. And not properly digested food become Ama, the toxin. So the entire GI (gut) immunology is involved in dietetics and for-mulation of the herbals.

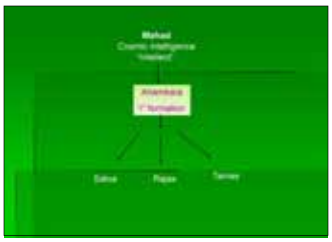
Sprasha is the touch examination, of course, palpation things like massage are included. Shirodhara, which is another treatment we do and especially for people who are in mental health conditions: insomnia, etc. greatly benefit by these techniques. These are energy related techniques. Roop is form or visualization. Of course, we do Darshanam for examination.

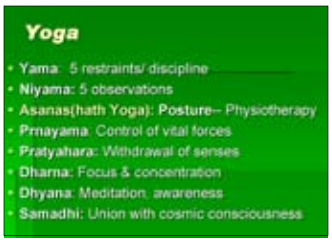
Mandalas are these geometrical designs which are used as so called decorative factors for feeling good. It's also what you call the guided imagery for diagnostics. And this is also [a] kind [of] celebration that people do with colors. The color becomes a very visual effect that brings…happiness. In India, -- it is the custom of the house when the so-called lady of the house is ready after taking a bath and having to be ready to

> The color becomes a very visual effect that brings happiness.

come out she would come out and do these kinds of Mandalas at the door so the entire neighborhood knows that lady at this house is now functional and they could interact with this house.

Color therapy, of course, as you all know that color coordinates [with] therapy. Flora, or flowers, are very important and if you have invested in the idea you will find flowers all over the places. And every house, somehow, integrates flowers in the morning for doing puja (devotional ritual)--. So this not only gives a nice look [and feels] good but also is aromatic. Woods, garden, greenery all part, of course, -so-called pre-





ventative and therapeutic models…and some of my students are involved in learning these [modalities].

Taste plays a very important role, so taste taken into foods and spices for maintaining health -- is preventative medicine. And in therapeutic [interventions] for choosing herbs we also do taste as one of the so called evaluations for the herbs and I will talk about it in a minute. Herbs are grown, of course, locally and very seldom are exported and most of the herbs are locally given by the local physicians. [On the slide is] the department head at BHU. I was trained here. BHU is one of the top Ayurvedic schools of Indian origin. And of course, is seen [on the slide] writing [a] prescription [for a] drug.

I just mentioned that herbs are evaluated on the basis of their taste Rasa, Virya and Vipaka are [some] of the parts or formulations that we take into consideration for evaluating herbs. There are six Rasas: sweet, sour, salty, bitter, pungent, and astringent and they have effects on our Doshas. Taking too much sweet will aggravate Kapha; if I'm a Kapha person eating too much sweet what will happen to me? I will become obese and obese and obese. So this is aggravation of Kapha. Similarly sour will aggravate Pitta and Kapha; salt will aggravate Pitta and Kapha; bitter is actually neutral; and pungent will aggravate Vata; astringent will aggravate Vata. So what [what happens when Vata] people [take] astringent? They will become more constipated and will have more roughness to the skin. So that is how it is blended into the diagnosis and also for the therapeutic. If one is having dysentery then of course I will give some astringent to make the Vata

> The smell is very important

elevated and that will cause constipation. So coffee would be a very nice thing to have if you were having dysentery. So that is how some of the things are brought together.

The smell is very important this is another factor of subtle energy. Aromatherapy, incense are burned everyday in Indian homes. [For rose, we use] the floral extract; the scent which we call perfume of course. And the flower and rose petals are used as perfume or as an aromatic substance to have aroma in your water. Or even sometimes…aromatic baths are prescribed and taken. Sound is very important. And this is our dean who has sat down to do Ganesh puja [on the slide]; he is chanting mantras. The entire music system of India evolved on the basis of sound. Mantras are a special formulation of words that will resonate in the body. The body has similar points as you have acupuncture points, similarly the body has-— sound points that absorb certain vibration. Ayurveda actually targets those for therapeutic as well as preventative [care]—[mantras].

The biggest mantra is "om." Why is "om" so big? Because "om" is also the universal vibration, present in Brahman. And scientists have now seen and proven that "om" [Dr. Guha makes this sound] so, "om" so if you go outside the Earth's [boundaries] you will hear the world 'hum.' And so "hum" or "om". [Om] is taken to unify to bring us together in the alignment of the cosmic vibration. So these are not some kind of concoction of religious or fundamentalist attitudes or beliefs but these are all based on scientific understanding of vibrational science. Now music, mantras, chanting, and japa, these are all almost similar kinds of things but they have different kinds of tone. [Audience participation in toning.] And if you put your legs [feet] down flat on the ground and then put your hands on your thighs, put your body straight in a 90 degrees position, then chant "om" together, -- you will feel the vibration in your body. Let's do. [Group participates in "om"] . So when we are in alignment of the same frequency, you will feel the vibration, alright? In any other position it will not be so because body has circuitry. When we sit in the lotus position that gives us circuitry which…aligns us [in] our so-called magnetic circuit.

And the energy then flows through the earth into you and circulates and this is the so called concept of energizing yourself. Similarly, those who do Savasana will lay flat on the ground, put your chin up, put your hands up on the floor, and you will see tremendous relaxation. Why? Because you are one with the core of the Earth's energy. So these energy fields come from the cosmic energy and that is what Ayurveda points on to balance yourself. We are microcosms of the macrocosm. So, if we [define] the macrocosm we are also defining ourselves. So the basic tendency of Ayurveda is to balance yourself through all the capacity in every way. We will come back to some of

t his is a feel good.

the concepts of balancing yourself and if you can do that you will be in perfect health. Now I will give you examples of some of these music and mantras and chanting and Japa). Japa Is the repetition of the same words [Performs japa] This is Japa. Music is [performs example] this is - music. Then mantras, I told you the biggest mantra is "om" . Then chanting: [performs chant] this is chanting. Now, what happened to you when you did this? You felt good! So this is a 'feel good.' So what happens to your endocrine system? What happens to your neurotransmitters? You don't need an extra boost of neurotransmitters from outside it is generated inside. So sound has a tremendous effect on us. And Ayurveda takes the subtle energy in treating them [people].

[On a slide that is not included in this document is] a regular outpatient clinic, in one of the medical schools of Ayurveda. So you can see that conventional medicine is practiced -----as well as subtle energies are practiced by Ayurveda goes hand in hand. Same people who are of course physicians and scientist are sitting doing havan here [on the slide]. And singing and chanting just the way we did. So this is a part of life. An amalgamation of all kinds of subtle energy that is existent in nature is brought to us within these rituals. This is called havan [on the slide]. And the concept of havan is to burn some special woods. These are not just some woods these are selected by virtue of woods that will be healthy when they are burned and smoke will come out and purify the surrounding. They also have [an] aroma so it's very nice to smell, fire is beautiful to look at. So all five subtle energies are here at this point and people are enjoying that. This is part of their daily rituals.

Mimamsa's philosophy brings us to the four pillars of behavioral sciences. It gives us Darma.[the four pillars on which--stands the behavioral sciences or our behavior]. Dharma is 'righteous duty.' Duty, dharma,[the word dharma] is often mistaken. If you ask, many of the Indians will say this [dharma] is -- religion. Dharma is righteous duty. As a teacher, I [must] know my duty is to teach; as a mother, I [must] know how to cater to my children; as a wife, I [must] know how to make my husband happy; as a citizen, I [must] know what my duties are towards my society, towards the nation. Then I am doing the righteous duty. If as a teacher, I have no clue what I am teaching what would happen to my students? If as a physician, I am not treating and I have extracted money what is happening to our society?

That is exactly what has happened to our economic condition what all the accountants and executives did: [they] horded money for themselves. And what happens to the society? So whatever we do to ourselves, in nature, - it comes back and that is what righteous dharma teaches us. Artha is an accumulation of wealth. Wealth is not necessarily the dollar bills. My wealth as a teacher is my knowledge. My wealth as a healer or a physician is how I can heal my patients. If I can not heal my patients, I will not earn money. But if I'm good whether it's out of pocket or not out of pocket the people will want to come and see me. And I come from a family which has experienced all kinds

of things[free service to people]; patients who come to see me often pay out of pocket but they still come to see me [if I am good].

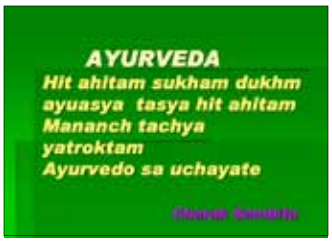
So you [must] know your trade, that is your wealth form which you will generate a righteous amount of wealth which will earn you a living. Kama is desire. Kama is also sex. So positive desire is a must and one must fulfill them and how? Suppose you feel like having sex and you are running after a person who he or she is somebody's wife or somebody's mother. Is that a righteous Dharma? No! So you must learn how to control your Kama or how to control your desire in a righteous way in the context of right dharma. And this is what this kama [positive desire] means. Moksha is the ultimate awareness. The ultimate enlightenment, so called saturation or appeasement of the spirit. There is a big difference between spirituality and religion. Religion is a box. We are separated. We are segregated. Spirituality is the essence of [the] cosmos, through which we are united. Spirituality has no boundaries, no boxes. We speak the same language whether we speak audibly or not. Sometimes silence is the best language and we can understand each other much, much better. So there is spirituality. So there is a big difference

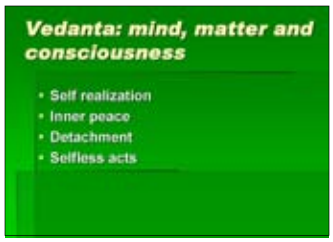
> I come from a family which has experienced all kinds of things…'"

in spirituality, a longing of our spirit to be free. And why? If you have seen the electron moving in the circuit, what does [the] electron(s) do? It comes against another atom and if there is any free electron moving it will try to cross the boundary so that it can balance and pacify its movement. So is our spirit always longing to unite with the greater cosmos so that it doesn't come back and that is the essence of Moksha. Or so-called what you call 'no return' of the spirit back to any kind of form.Vedanta is our sixth philosophy. Vedanta contributes greatly because its emphasis peace is not outside; its [point is to see its] self as everything in the universe. So knowing yourself is the supreme awareness by which you can control almost every aspect of your life. This is the Vendantic philosophy. And the Vendantic philosophy is applicable and applied greatly towards mental and spiritual health.

Yoga. Yoga has eight arms but Yama states that there are five vows one [must] takes before entering this [yoga]. Niyama are the five ways of transformation that is internal and external disciplines before you get into the Asanas [hatha yoga]. Here, in this country, we just do hatha yog, only this phase. We don't take any vows. We don't follow any vows. We don't transform ourselves. We only exercise. And this is also important because exercise gives you a kind of [an] understanding of postures; it also is a physiotherapy of Ayurveda. When we are diagnosing people we often also recommend certain yoga positions for certain [types of] disease(s). So this is very important but alone Asanas are not enough to make one [a] yogi.

Pranayama is [the] control of vital forces. In pranayama, you must have experienced, or know this is an exercise of breathing or breath. This is [one of the] several types of Pranayama [demonstrates]..it's a great exercise for lungs. Normally we only have so much capacity, I take into consideration [that you] work out…only [involves] two-thirds [of the] capacity of [our] lungs. The one-third capacity of lung is inert. We don't exercise it. So what happens, it starts atrophying and by the time we age, the one-third is increasing and two-third is shrinking. So we lose the capacity of full breathing. Dharna is internal steps. It teaches us how to focus, how to concentrate, which becomes an essential part of meditation. Meditation is not just making the room dark, sitting and saying "om". This is a misnomer. Meditation is a self -involvement. It evolves and it happens. You don't meditate as light is dulled. This is an exercise [of mind]. This is a focus. And if you remember we are all born [with] the capacity to become yogis - should we really, really train





ourselves in this way. Your capacity of smell will be increased. Your capacity of listening will be increased. Yogis can listen to the audiovideo ranges that we can not hear or see. Why? Because through these exercises they have doubled up their extra-perceptionary power.

Dhyana is the control and flow of attention. You can beat the drum here and I'm somewhere else focused. That is my attention-concentration. Samadhi is the union with cosmic consciousness. This is a state which Vedanta brings you "of knowing self." When you know yourself nothing matters around. One comes to hurts you- so be it! It is his or her doing. Your self is indestructible. Your self is the one that is part of cosmic energy.

So all of these philosophies come in to becoming Samadhi. There are yogis in India who can really leave

> Your self is the one that is part of cosmic energy.

their body at will. They have various kind of food discipline; they start eating -- certain foods, embalming themselves from inside, so they can sit in the so-called lotus position and be gone. And their body is still, still sitting like that and probably you would think that person is in lotus position doing meditation, but he is gone. So these are the controls of the so-called leaving --the body. And it also actually helps us to understand the end of life phenomenon. That through detachment, you become detached so that you are not in a kind of sad feeling, bad feeling, or afraid of dying. So this brings us into a kind of end of life modem. Prepares us to leave the world [in peace].
The fourth pillar of health is called rejuvenation therapy, [and] it involves all the things that I have talked about. Ahara is nutrition. Achara is all the… behavior that we talked about. Vehar is all the exercises and practices we talked about. And Aushadhi is the herbal component that we take for rejuvenation of health.

If one follows these regimens then one has [a] very expansive life. Ayurveda say the average human life is 100 years and 100 productive years that is not on the wheelchair. If you know [our stories of war] [Mahabharata] where three generations fought in the same battle. The grandparents, the parents, and the grandchildren with the same vigor; with same vitality. So you can see, there is not [a] kind of loss in vitality when we have achieved [a] certain [disciplined] way of life.

Ayurveda describes the perfect life as:
Samdosha sam agni
Sam dhatu malakriya
Prassanatma indriya manah
Svasth iti abhidayate.

This definition is now taken by the U.N.O. to describe perfect health. Sam Dosha: when all three Doshas are in balance; Sam Agni: when your metabolic fire, which is digestion, is optimum. Sam Dhatu: when all seven tissues are in order. Mala Kriya: the urine, sweat, and feces [we now don't pay much attention; we probably don't even look at our shit after coming out of the bathroom because we are absolutely go, go, go. But: shit is the daily newspaper of our body [metabo;ism]! It is a daily newspaper! If you look at your shit: if it is white, you know the food is not digested; if it is smelly, you know food is not digested. So it tells you about the [accumulation of] ama (toxin). So excretion is very important, similarly sweat. There are Pitta people who sweat like what you call rotten fish. Alright, so these are very important components of our bodily functions.

Atma is the spirit. When the spirit is happy, mind is at ease, [and] the senses are [at] in optimum function. Then Swastha has two meanings. Swastha means health; Swastha means knowing one's self. So when you know the self. [you will create]…inner peace, so this is the definition of perfect life. "Perfect Health." And so be it. Thank you.

Rob Scott, DC PhD

Thank you, Dr. Guha. So I took a lot of notes; and my takeaway, at the top of my notes, is 'shit is the newspaper of your body.' That's my takeaway. I don't even know where to go from there!

But let me try; thanks for that! I've got a few comments. They will relate to Dr. Morris equally, but I think that I can articulate this a little better. There's a saying, and I wish I could remember who to attribute it to, but you've probably heard it before. "Seeds are borne by the wind but they don't settle into the terrain until the terrain is ready to receive them." And that saying gets, for me, to the issue of balance. And we've been hearing a lot about balance from the speakers, particularly the last two.

The elements, the equations, the factors, all the things that go into this are elements of the vitalistic perspective. And that's interesting to me, because when you start talking about balance I found myself, from my physiological background, wanting to go immediately to discuss homeostasis.

There's a predisposition [on the part of those of us trained this way] to say, 'oh, they're talking about *homeostasis*.' But I find myself then thinking, 'no, the concept of homeostasis is really incomplete.' That's a *state*, and I think that what we're talking about is more a distinction of what *allows* homeostasis. Is vitalism the background? Is cosmic consciousness the thing that drives us? And controls the awareness of homeostasis. So to me it's getting at a much deeper level, potentially philosophically.

The other thing that's important from my perspective—and I'm going back to Dr. Coulter's book because of course the chiropractic profession has been criticized on several occasions by a number of authors—that what we're really talking about is not chiropractic philosophy *per se*, but what we're really talking about are the philosophies that make up the professions. So we talk about vitalism, and therapeutic conservatism, and naturalism—some of these aspects that we've been talking about.

And when I was listening to these speakers I was seeing these six philosophies. And I was wondering, 'are we in that same conversation?' Are these truly philosophies that are make up Ayurveda? Or are they individual philosophies?

The other question that came up in my mind is on the issue of environment, and all these different factors. We get into this very broad influence that can affect health—we get into lifestyle, sex, diet, the position of the planet, seasons. I say to myself, 'well, that sounds like a very holistic perspective on health,' but then I immediately ask myself, 'can you be holistic but not vitalistic?' Because 'vitalism' and 'holism' are two philosophies. So these are questions that hopefully we can have some dialogue about tomorrow. Just some thoughts.

Molly Roberts, MD Vitalistic Philosophy – Medicine

It s about being in right relationships, right relationship to the world around you. I think that the key ingredient of vitalism is that it is holistic medicine with a soul and bringing the soul into healing is what makes the difference.

Hello, my name is Molly Roberts and thank you for that wonderful introduction. I'm here to talk about Vitalism in medicine and it's too bad you couldn't see my slides, because on the very first slide I wrote "There is no Vitalism in Medicine". How many would agree with that one? Ok, I just thought as the M.D., I would get that out of the way. Because, you know, there really isn't a lot of Vitalism in medicine. It depends upon what your definition of Vitalism is, but it's an important concept to discuss.

All day long, we have been hearing definitions of Vitalism and what it means in different philosophies, and I would agree with just about everything I have heard in terms of how to look at it. Certainly there is the Merriam Webster dictionary version that has to do with "a doctrine that the functions of living organisms are due to a vital principal distinct from biochemical reactions" and a doctrine that "the processes of life are not explicable by the laws of physics and chemistry alone - that life is in some part self determining." I wrote those definitions down because, gee, if it was in the Merriam Webster dictionary, then I guess I am supposed to believe it.

But I had trouble really understanding what that meant and what was coming up more as I looked at other people's definitions was that Vitalism is an intrinsic healing ability that is within all of us. That vital essence, that vital spark that is in all of us.

Another potential definition is a discussion of energetics. We talked about energy medicines in that there was some sort of energetic force to tap into, and that these healing modalities use techniques to bring up that vital force. In some cultures it is called "Chi," in others it is called "Prana." It has been called a vital spark, innate intelligence of the universe, and Yoda called it "The Force." So depending on where you grew up, you'll have a particular name for similar forces.

I want to give you my own definition of Vitalism and how I put this into my own cosmology and that has to do with connections. I see that Vitalism has to do with connections, connections with yourself first. A lot of these types of medicine you have been hearing about today talked
a lot about that, connections within yourself on physical, emotional, and spiritual levels. It also talks about the connection with the people you love and the people you don't love, that's a big one. Connections to your community, to your environment, and somewhere along the line, to something bigger than yourself. Now, I use that definition because it is also my definition for spirituality and I think that Vitalism and spiritually are very similar.

You are not going to hear too many medical doctors say this, but I see healing as sacred at its core. Let me say that again, healing is sacred at its core. I see

there is the sacred in everything, sacred in all things. And if we hold onto this concept, a lot of healing can happen. There is a treasure trove of healing ability out there. And I can head into lots of different directions with this. I could head into the physical only, and I could treat your broken arm with a cast. I could go into the realm of the emotions. As an aside, I would love to hear more about Ayurveda because I do a lot of the types of medicine Ayurveda does. What was lovely about that was that Ayurveda seemed to use a lot of the senses for their healing work. The whole idea of spirituality is bringing up all those senses and making use of them for the healing force.

So it's about being in right relationships, right relationship to the world around you. And my background is holistic medicine and you were asking earlier if holistic medicine and Vitalism are the same thing. Not necessarily. I think that the key ingredient of vitalism is that it is 'holistic medicine with a soul' and bringing the soul into healing is what makes the difference.
And so my other definition of Vitalism is that it is an open question. You know, it's been an open question for thousands of years and we are still trying to figure it out. It is okay that it still is an open question.

A lot of what medicine does is that it will figure out that something works and then it will collect it. So if there is some herbal remedy that works, then medicine will take it and it's suddenly a standard of care and no longer belongs to the people who brought it to the forefront in the first place.

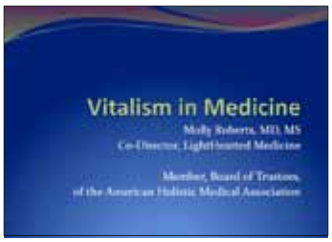
And another part of what has been happening with this is that we understand more about how the world works. Something that once had mystical origins now just becomes something that we understand and so we take it for granted. When I was in medical school, I learned all about embryology and so I could understand how one cell could turn into two that could turn into four and could continue to divide until it became a human being. But if I am missing the beauty and the sacredness and the mystery of, and the magic behind, that one cell turning into two turning into four and going on, then I am missing something vital

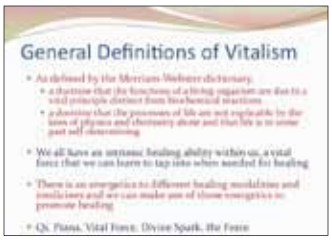
> But If I am missing the beauty and the sacrednesst hen I am missing something.

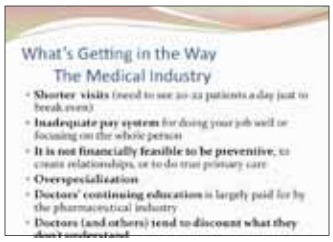
about embryology. I could go into Anatomy class (and again, I'm going back to my medical school days), and in Anatomy class, I remember looking at the human hand. I was told that this would be the hardest body part to dissect because, even more than the face, the human hand just feels more personal. What I found, though, when I actually looked at that human hand was what a miracle, a miracle! We all have hands that are very different.

Yet somehow, that one cell turned in two, turning into four and so on until we all have, well for most of us, five fingers and a palm and fingernails. The whole bit, I mean, wow! The mystery of that!

I think that medicine has lost out, that is has taken that portion out. It has taken away the feeling of wonder, the appreciation, and the gratitude for what we consider everyday activity. So to explain this a little bit, I started out with that first slide saying that "there is no Vitalism in medicine" and I sat with that for months. I didn't write one more slide because I was really struggling with that. I really do believe that there is not a lot of Vitalism in medicine. And what I decided to do was talk a bit about what I think is missing in medicine. You know, you heard a lot of philosophy today. You heard about a lot of different medical paradigms and what I would like to talk about is why I think some of these paradigms have gotten lost in the shuffle with modern medicine, because the only way we could make some changes in that system is to talk about what is getting in the way.







So first of all, I would like to just give you an idea of where I come from because I bet you didn't expect me to come up here and say all this about sacred, magical, mystical, mystery and all of that. I started out as a psychotherapist. Actually I started out as a child who was very interested in the mystical and magical and then became a psychotherapist. I wanted to be a doctor for most of my life and ended up with a brother who got very ill. My life path changed, and I went into psychology. I found that discipline to be very interesting, but it was only a piece. I knew that it was only a piece of the puzzle of what was going on with people and I knew there were other pieces. There was the nutritional. My brother got better through nutritional medicine. There is the psychological. There is the spiritual. He also got better because there was a family around him that was dedicated to bringing him back into health. So the relationships were there. When I got through the psychology training, I was a psychotherapist for many years and then ended up going back to get a medical degree.

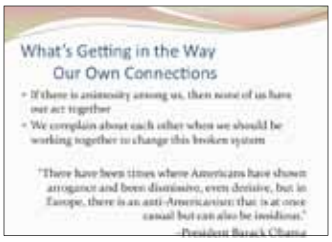
Now you could imagine going into a medical degree with a psych background - it takes you into a different realm. I was also older with children when I went to medical school, so my viewpoint in general was different. So I went through the family practice residency. In the middle of my family practice residency, I had an injury to my neck that paralyzed me. I could walk, but I had very little use of my arms for a long time. I also had a lot of pain for a really long time. It's amazing how those bigger questions start to come up. About who you are connected to in the world. What is your purpose in the world? Who are you as a human being? It's amazing how fast that comes up when you are dealing with your own illness.

What happens with people who haven't gone through that kind of an illness is that they don't even realize that it's an issue. So a lot of doctors may not even realize that this is what is foremost in your mind when you are going through something big like that. So I did go back and finish my residency. But I realized that if I was going to go back I had to speak my truth. And my truth was that the mind, body and spirit could not be separated out. And at the time I really thought that I was going to be the "kook," the strange one in the program. I just was expecting that, but I really had to speak my truth. What I found when I started saying things in that language was that there are a lot of closet kooks out there. A lot of doctors really do get this on some level.

Okay, they really do get it but this system really doesn't allow them to express it. There were a lot of people who said, "Well, I'm glad you are doing this. It's not my thing. I can't do it. But I'm glad you are doing it." And so instead of becoming the kook of the group, I became the one who got referrals. Anyone who was

> t hat s pretty much outside the box

"difficult," I got the "difficult" patients. I didn't see them as difficult at all. They were just the patients who needed a little bit more time. And that comes back to my concept about connections. Because if you are talking about Vitalism—you need time to talk about Vitalism, and so, if you are bringing that back into medicine then the practitioner needs time. Needs time to connect with the patient, and I call them "fellow journeyers" not really patients. The practitioner needs time to listen. You were talking about listening in Ayurveda. In my private practice, I would see patients from two hours to an entire morning or afternoon in a first visit. Now that's pretty much outside the box, but I can tell you the most important revelations that showed up were three hours into the conversation when they would tell me something that was vital to their health that they had not ever told anyone before. A rape or a trauma or something else. Or a connection that they hadn't made before that all of a sudden, once



they had the time to talk about it, they were able to make that connection.

So the Vitalism, coming back again and again to the Vitalism. That idea of walking the worlds. Walking the worlds of science and miracles, really important. Now I have this wonderful little slide that you can't see talking about holistic medicine and Vitalism. And what it has is a list of some of the things that come into play

> "How does joy fit in?"

in terms of looking at this. It has to do with hereditary make up, childhood experiences, family relationships, work and social environments, personality, past and present medical problems and treatments, exposures to inflammatory substances, past or present psychological trauma, life transitions, life style including diet, physical activities, sleep, hobbies, sexuality and sensuality, meaning and purpose of life, spiritual connections, and joy. How does joy fit in?

Now where does Vitalism fit into that? It's in the cracks in between. It's in the connections in between. Or let me put it this way, this is my definition of it. You know, I can't speak for anyone else but that's my definition of it. I'm reading a book right now about politics and how hard it is to predict what is going to happen in the world. And they were doing some experiments with these grains of sand where they kept adding little grains of sand to the top of this pile. And what they found as this mound got bigger and bigger was that there was literally no way to predict how all of that sand was going to fall. You know, would this grain of sand make an avalanche? Would it head over to the right or to the left? Literally there was no way to predict. With that long list of things that I just brought up, there is no way to predict how all that would manifest in one human being.
In one person, their hereditary make-up may be the most important thing and for someone else, maybe it's their personality. Maybe it's their resilience to stress. Maybe if someone is living a particularly joyous life, it doesn't matter that they are in a wheel chair. It really just depends upon how all of those grains of sand land.

So there are a lot of smart people who have looked at Vitalism and believed in it, looked at the forces at play and tried to figure this out. It started out with Shamans. One of the things that came out of my paralysis was an interest in Shamanic medicine. It fit when I started learning about it, it really fit. It was very psycho-spiritual. Lots of ritual, lots of ceremony, you know, some of the things you were talking about. And what I found was that those people who really embraced it healed faster than anything modern medicine could give them. Shamanic medicine is not the way to go for everyone, but all I am saying is that that combination between me and the person I was working with seemed to make it work very quickly. For someone else, Ayurvedic medicine may be the way to go. Naturopathy may be the way to go. Shamanic medicine is not the only key. There is also nutritional medicine. I got board certified in nutritional medicine. I realized that was very important as another tool to heal quickly. So that's a part of it as well.

I wrote this quote down and I have used this quote in many lectures having to do with holistic medicine and you have probably heard it before. Plato says, "The cure of many diseases is unknown to physicians. They are ignorant to the whole which ought to be studied for the part could never be well unless the whole is well. This is the great error of our day in the treatment of the human body, that the physician separates the soul from the body". Has anyone heard that one before? Yeah? Well, I have always used that quote, saying boy, they got it way back then, but it dawned on me while I was doing this talk on Vitalism that wow! If he had to say that out loud way back then, then maybe they didn't get it. Maybe this has been an issue for a long while.

So let me talk a little bit about how Vitalism has come into play with medicine. It started out with Hippocrates and Galen talking about the four humors. The four humors were black bile, yellow bile, phlegm and blood. And that sounds kind of similar to some of the Eastern traditions, if you think about it, that they were fluids, they were moving and if you were to influence the fluids then you would make a difference in terms of someone's health. Then there was Aristotle, who talked about the difference between living matter: vegetable and animal and mineral. And the difference between organic and inorganic.

> t hey didn t have all the answers we have now.

When I look at those four humors, organic and inorganic matter back then, that was something that was considered mystical and vital. Now when I look at that, I see the beginnings of biochemistry. It's just that they didn't have all the answers we have now, so they were trying to figure out their world and that was how it was getting figured out.

Even in the time when doctors were doing a lot of blood-letting, there may have been a reason for them to think that it worked. That's been looked at as something bad and it was a horrible thing to do. Well, it was in some ways not helpful to many people's health, but actually it was very helpful to other people's lives. Back then, after the Plague, people had a lot more iron in their blood. And I could go into a big long explanation of why that was, but letting blood actually made people feel better. So they had scientific proof that it made a difference back then. And it wasn't until later that we figured that there may have been something else going on.

Then we get into Rene Descartes. He comes into the picture right after the Plague. Before Rene Descartes, the idea that mind, body, emotions and spirit was all deeply interconnected was how people looked at the world. That if you got ill, then there was something going on in the spirit that may have added to it, offended God or something like that. When the Plague happened, all of sudden everyone was dying. Whole populations were going. The good people. The bad people. The woman and children. Everyone was going. And so they started looking at what else might be the cause for illness. And Rene Descartes made a deal with the Pope to separate out the science and the spirit. He wouldn't deal with the spirit. He would only deal with the science that gave him the ability to do dissections. So he could get a sense of how the body worked. This was the beginning of Rationalism and Reductionism in medicine. Then came Sir Isaac Newton, he added to that. Other people who came along include Rudolf Virchow who talked about cellular pathology, so then, we understood how the cell worked. Friedrich Wohler came along and showed that you could make organic substances out of inorganic substances, so all of a sudden, life didn't seem as mysterious as it used to be.

I bring these up because it is important to see why we started heading in the direction of being reductionistic. We got a lot out of medicine being reductionistic. We understand how the genome works. We understand how cells work. We understand about so much of medicine we didn't understand before. The problem with it is that we are not just a sum of our parts. We are much more than the sum of our parts where the Vitalism again comes back into play. So some of the thinkers who were looking at the world in a more Vitalistic way were people like Sigmund Freud, Carl Jung, Albert Einstein. Albert Einstein had a lot of trouble with quantum theory because quantum theory said there was a randomness to the way the world worked. He said 'God wouldn't do that,' so he was trying to make order out of the universe. He felt there was a vitalistic principle that was attaching to it.

One of the things about quantum theory that I find very interesting and it's going to come up later in my discussion is that quantum theory holds the both/and instead of the either/or. It says that the universe is order and that the universe is random at the same time. And that could be hard to follow, but I think it is really important when looking at how to bring medicine and Vitalism together.

So what is getting in the way? First, I want to talk about anxiety. Uncertainty makes us nervous and so having that uncertainty of what is Vitalism; what makes it mystical; what makes it magical; is it a principle we haven't quite figured out yet? Is it biochemistry? That part makes us nervous. It is easier to push it away.

As a society, we are addicted to the quick fixes and a lot of looking at things in a vitalistic way takes time. And so if we are always looking for the quick fix, what we are going to get is not deep fixes. We are going to get surface ones. We are going to treat the symptoms, possibly, but we are not going to treat the cause.

Diet and nutrition. Society has a love-hate relationship with diet and nutrition. Especially in this society, there is not a big recognition of the vital forces within food. And so processing becomes something that is sanctioned by our legal system and there is not a lot of focus on, again, the things that take a little bit more time.

Nutrition, exercise, sleep, emotions, relationships, finding joy and meaning in life. For some people, absolutely the most important question of their day is finding meaning in life. And it may have nothing to do with the headache that brought them to the doctor. In fact, the headache may go away if they find meaning and joy in life.

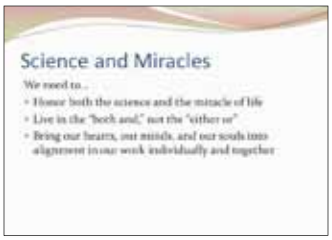
So what is getting in the way in the medical industry? First of all, the definition of allopathy is finding your answers outside of yourself. And so if you are always looking for answers outside of yourself, the answers are not going to be as internalized as we might have liked. They aren't going to stick. The standard of care in the medial industry is restrictive. I may be able to give someone fish oil to thin their blood, but it is not

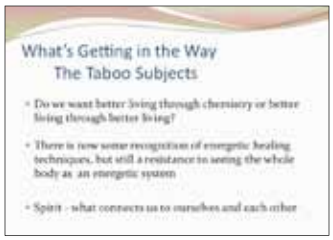
w hat is getting in the way

standard of care. As a medical doctor, I might get into trouble for doing that instead of just giving aspirin to thin their blood. And so the standard of care can be helpful in terms of keeping people in some way safe, so that doctors don't do too much going outside of the box, but at the same time going outside of the box is sometimes worthwhile.

It's hard to bring Vitalism into allopathic medicine, partly because there is simply no time to go there with patients and so it's not accepted by a lot of medical doctors. Another problem with the medical industry is that we have lost our connection with the doctor. It's become the standard that your insurance changes and so you change doctors. And so it doesn't matter if you see doctor A versus doctor B, but it was the connection to that doctor that was part of the healing force. If we are missing out on that, we are missing out on a lot.

Shorter visits - MD's need to see 20-25 patients a day just to break even. Then after their 20-22 patients, that is when they start paying themselves for malpractice and that sort of a thing. So that can certainly get in the way. There is an inadequate pay system for doing your job well and bringing Vitalism into the discussion. It's not financially feasible to be preventive. It's not financially feasible to have a relationship with your patient and it's not financially feasible to do true primary care. I have been looking around at physician jobs in the country lately and what I found is that if you want a job doing assembly line medicine, it's out there. You





can find it anywhere in the country in fifty states. If you are looking for a job where you spend some time with your patients and really get to know them, they are hard to find. You have to really look for those.

There is too much over-specialization. There really is a shortage of primary care doctors out there. And if I am looking at just one part of a human being, then I am missing that treasure trove of healing ability that's around them. So the over-specialization is becoming more and more of an issue.

Doctors' continuing education is paid for by the pharmaceutical industry and that is an issue as well. And doctors tend to discount what they don't understand. It's a lot easier to say…'I don't know a lot about it so I don't want to talk about it.' Because if a doctor doesn't have time to see their patient, then they certainly don't have time to research alternative types of treatment.

Pharmaceutical industries- now I don't want to demonize the pharmaceutical industry because I just don't. They have brought good medicines to the world, but there are some real issues with how the pharmaceutical industry is set up. First of all, you can only patent a medicine if it is synthetic. If it is just like your own body, you can't patent it which means you can't make any money off of it.

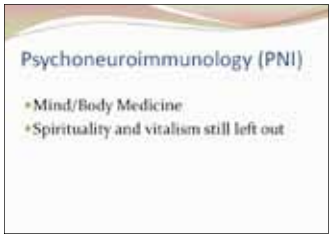
So it has to be an 'other' for the pharmaceutical industry to make any money. That sets up a dynamic in which any treatment that is like your body, like bioidentical hormones, they are going to have a problem with. They are going to make it hard for that to go forward into the mainstream. And so if you have something that is a natural hormone or natural herb, you will probably find someone in the pharmaceutical industry trying to get you to take it off the market. And so something needs to change with that.

There is no money for research in natural treatments. So natural treatments don't get the research they deserve. I really believe in doing research on healing techniques that are holistic in nature. I don't buy into that line of argument that says that just because something has a mystical quality to it, we can't check it out, that we can't study it to see if it really is effective. And yet, we don't know how to study it yet and that's a part of the exploration. We need to figure some of that out, but as long as the money isn't there to figure out how to study vitalistic types of treatment, we aren't going to get very far. So something needs to change with that as well.

Reports of holistic and vitalistic treatments get skewed in the news. I have seen this often when an herbal remedy is researched with a study. A good example of this was glycosamine and chondroitin sulfate. There was a study done and the big headline was "it doesn't work for arthritis." If you read the actual study, it said it did work for arthritis. But you had to have actually read the study. The category of people they said it didn't work with included people who didn't have much pain and those that didn't actually take the medicine. They lumped those two together, and so I see that a lot. We all need to be vigilant when we look at something like that. If it says a certain supplement doesn't work, then actually look at the study and figure out whether or not that's the truth because the headline often is not what is really going on.

> w hat is really going on.

Another part is the placebo effect. It's been interesting, I have been listening all day and the placebo effect has come up once or twice but it really hasn't come up as a concept of vitalistic nature. And the placebo effect is where there is so much healing potential. With every medicine, they have to take out about thirty percent of its healing value that is related to the placebo effect. That is an untrained mind healing themselves. If we were to take advantage of that innate skill that



we all inherently have inside of us to heal—then, oh my gosh, just think about that! If we could do that with an untrained mind, thirty percent, then how much higher could we go and help with healing if we did train people to use their mind's belief systems for their own good? But, it has to be studied. It's got to be figured out how to take best advantage of it and that gets lost as well.

So what's getting in the way with holistic practitioners? It's always hard to have that kind of a conversation in a group of holistic practitioners, but I'm going to go for it. One is education. I think that is really, really, really important and very clear ethical guidelines are also really, really important. Now I don't say that just for holistic practitioners. I also say that for doctors who are trying to use holistic techniques. A lot of doctors out there get a tiny little bit of training and all of a sudden bill themselves as holistic practitioners. I have also seen some pretty bad results from holistic practitioners who didn't pay attention to where the boundaries ought to be and have been harmful. I've seen holistic practitioners who didn't have enough training in how to work with people who are in transitions and in crisis, and that's very sacred work. If you don't have that training, it is really important to recognize that and get the training and mentoring to make sure you are not doing harm.

Until some of these vitalistic types of treatments are better regulated, they won't be fully accepted by the mainstream or trusted, and so that's an issue as well. Supplements, energetic healing and things like that, they need to be tested; they need to be regulated. People who are performing those types of activities need to be a part of a professional group that oversees them. And if we are not self regulating, somebody else is going to try to regulate us. I would say that about the supplements as well. There is a lot of push not to regulate supplements, but there are a lot of supplements coming from places with a lot of lead and mercury. So I think it's really important that we pay attention to that part, too.

Everyone has a piece of this puzzle

I can't emphasize this enough but everyone holds a piece of this puzzle. The allopathic doctors do, chiropractors do, the naturopathic physicians do, Ayurvedic practitioners do, the acupuncturists do. Did I leave anyone out? I probably did. The energy healers; ok. Everyone has a piece of this puzzle and what I see happening sometimes is that the turf battles get in the way. So if we are looking toward getting this kind of medicine out there, then that's one thing that we need to look at ourselves about. At some point, do we let go of the turf battles?

The other thing I have been noticing, speaking as a board member of the American Holistic Medical Association, is that there are a lot people out there doing these kinds of medicine in different specialties, and basically we are all saying the same thing. We may have different ways of looking at it, but we are basically all saying the same thing. But why aren't we working together more? Just this last year, the American Holistic Medical Association opened themselves up to other practitioners. They had been a medical doctor and D.O. organization for thirty years, and we just opened up to all holistic practitioners. So yeah, thank you. Thank you. So it's an attempt to bring us all together, so that we can start heading in this direction.

I pulled this quote from Barack Obama when he went to Europe recently, and he gave this great quote. If you can play around with it and think of America and Europe in terms of M.D.'s and holistic practitioners, this might help. "There have been times where Americans have shown ignorance and been dismissive, even derisive; but in Europe there is an anti-Americanism that is at once casual but can also be insidious." That is

what's happening, personally and in our relationships with each other as healing professionals. I am very aware of how much anger and animosity the M.D.'s have created in this environment. I am very aware of how we have added to the problem, so it's kind of hard for me to be up here as a representative of the M.D.'s recognizing that history. And yet at the same time, I have also heard prejudice from the other side of the aisle. About a year ago, I was at a naturopathic meeting and was told that unless I had gone through naturopathic school, I could not possibly understand Vitalism. So we've got to look at this. It shows up in religion as well, you know. The "I've got the corner on the truth." Well no, I don't have the corner on the truth and neither does anybody else.

Especially when it comes to vitalistic principles. There is some recognition in the medical community of vitalistic types of treatment like energy healing, and I have seen some studies on acupuncture being effective. But it keeps getting reduced to, well, "if I put this pin right here." It keeps getting mechanistic. And there needs to be some recognition of bigger energetic healing, energetic systems that we all belong to.

You know, one hundred years ago, it was folly to think that there was any energy that would come off of the body and then we learned we could do EKG's. Oh, well, ok, then energy comes off of the heart. Nowadays, no one would even think of that as a strange concept. Then there was, oh but it is nowhere else; just the heart. Then we figured out that the brain made energy waves as well and now we have EEG's. For some reason, there is still this block of thinking that maybe the whole body has an energy attached to it that we may be able to tap into both for diagnosis and for treatment. And what I would ask of holistic practitioners is to help with that process of teaching medical doctors about this, because it is an important area in healing that needs to be out there.

And another taboo subject especially in medicine is spirit and spirituality. Now somebody said earlier that spirituality and religion are very different and they are, they are. The spirituality gets back to connections, the connections we have to each other, the connections we have to ourselves, the connections we have to the world. If we are not in right relationship with those connections, then that is when disease happens. Finding the right relationships is where Vitalism happens. So, as you may be able to see, I'm mixing Vitalism and holistic medicine. And all of it into the mix is where spirituality comes, because I don't know how to separate them out. Being someone who speaks in terms of mind, body, spirit medicine, I don't know how to separate that out. You are you and you are your family. You are yourself and you are your history, and you are your spirit, your soul. You are your energetics, you are your nutrition. You are you and you are connected to you and to others, and it goes on and on. It really just depends upon how big of a microscope you want to have in terms of figuring this out.

So what I see in terms of helping Vitalism be vital is a few things. First of all, it just needs to be discussed. This time together is great, it's great to have these discussions, bringing the concepts forward. Then as we go on, we need to continue to have these discussions. It's sitting down and talking to M.D.'s about this subject. My husband calls it coming out of the closet in the holistic realm. When we first opened up our practice, he would go into the doctor's lounge in the local hospital and just sit down and start talking to people. That was his practice for getting comfortable discussing holistic medicine. And what he found was that was that doctors were really open to this. He was shocked; he expected a lot of bad looks and that sort of thing. Instead what he got from the gastroenterologist was "Oh, man, I'm so glad you are talking about this because this is so important and I just don't have time to do it." And then he talked to the heart doctor who would say, "Oh, I so get that relationships and

emotions are important, but I just don't have time to do it. I'm glad you are doing it." And that went on and on and on. I had this great discussion with a surgeon one time who, when I first started talking to him, was very much against doing anything holistic-minded. But with enough humor and enough talking about it and enough of my not getting defensive about it and also of holding onto that recognition of the importance of both science and mystery, he came around. He started referring to chiropractors and acupuncturists and things like that. So talk, talk, talk, talk, talk! I think that is very important.

At some point, we need to change this health care system Who agrees with me? And I am seeing movement towards that, but you know, we are still working on it. Right now, they are having some talks over in Congress about this and a number of my friends have testified before Congress about all of this. I don't think anyone has talked about vitalistic medicine or spiritual medicine though. And so I think that needs to part of this story, about how the health care system changes. They talked about prevention. We are allowed to talk about prevention right now and that's great, but what about meaning? What about purpose? What about following your soul's guidance in heading you toward better health? All of that is important too.

> that we need to have an open mind and live in the what if.

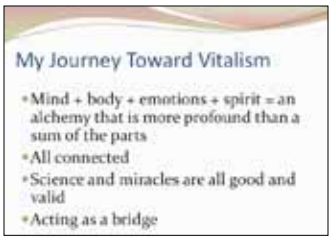
Another part of what needs to happen for Vitalism to be vital is to help patients understand why this is important so they can lend their voice to this cause. If patients are looking for the quick fixes, then we are not going to get too far. It really has to be something where we all are having a similar voice in this.

The pharmaceutical industry really has to get out of the medical education business. I'm currently studying for my recertification boards and when I looked at the answer to one question, it said that "this is the answer but this is what you are supposed to say on the test" and that was concerning to me. It was also concerning to me that it was a case study of somebody who was depressed and the options included sending them to counseling. I chose to send them to counseling instead of starting them on an antidepressant, but that was the wrong answer, because they didn't have seven out of the seven criteria for major depression so I had to wait until they were majorly depressed before I sent them on for counseling. So, as you might imagine, I am having trouble studying for these boards!

Another issue is that we have got to get the turf battles out between all of us. You know, if holistic practitioners can't be working together, then who can?

Let's see. What do holistic practitioners need to do on a personal level? I see our own healing, our own centeredness, our own clarity and purpose and our own integrity need to be just as important as what we bring out into the world. If we are not clear in who we are, if we aren't doing that holistic work and that vitalistic work on ourselves, then it is very hard for us to transmit that to others. And so our own work is just as important as working on anybody else.

I wrote this: "that we need to have an open mind and live in the what if." The 'what if ' is –that's Vitalism at its core. It's the 'what if.' If I am going down one paradigm and that's all I can see, then I lose out on all the other possibilities. If Einstein had believed in Newton's theory, then he would have never gotten onto relativity. If the quantum theorist had not said "gee, I don't know about relativity" and gone forward, then we would not have quantum theories of mechanics. All of it, that 'what if ,' is so important to hold onto. That idea that we don't have all the answers right now and, oh my gosh, I hope we never do. I hope we never do because I really want to hold onto that mystery.



So I see some signs of hope for this. I see some signs for hope. First of all, I said the American Holistic Medical Association is a sign of hope because we do get this; we do get what needs to happen in the future.

I have been looking at the different allopathic medical paradigms that are out there, and there is something new called patient-centered homes, medical home, and patient centered medical home. Has anybody heard about that? Yeah, a couple of people. This is where they are creating a new form of patient care; it is considered the future of medicine where they are looking into bringing in more education, more time with your patient, really creating a system that will be financially feasible and also true primary care. It's not perfect yet. They are still working on understanding these types of principles we are talking about here, but it is at least a start.

Functional medicine, I think, is one of those signs for hope. One of the people who testified before Congress was talking about functional medicine, nutritional medicine. The government is actually showing some signs of listening and of hope.

You know, some of the most holistic jobs I have noticed out there are in the Army. Isn't that cool? Isn't that unusual? But they have a job working with traumatic brain injury and post traumatic stress where they want the doctors to talk about mind, body, emotions, family—they want to bring the families in. See how they are doing. See what they need. See how to change that up. They are actually bringing some holistic medicine into the Army. The way the Army looks at it is that they have these people for the next forty years or so and they want to do it right the first time. I was just reading a book called 'War and the Soul', a fascinating book. It talks about how healing from the war and post-traumatic stress is not coming from regular psychotherapy, it's coming from vitalistic concepts of really looking at the sacred and the archetypes and the spirituality and those types of concepts. What they are finding is that there is more healing in those areas than with any of the other techniques they have been using.

The medical students really want to learn about this. They are craving it, craving it. And so if you find a medical student, latch on. I have been a mentor for ten or fifteen years now, and they are all over the place. They want to learn these concepts. There is a new generation of M.D.'s coming along. They are different, they really are different from the students who were out there before and so if you meet them, invite them in, sit them down and have a conversation.

Everyone knows that our current system is broken. Does anyone not think the system is broken? Everyone knows the system is broken and what is beautiful about that is that with crisis comes opportunity. And boy is that a vitalistic concept! With crisis comes opportunity. And so this is our time. This is your time, this is the time to bring these concepts to the forefront and it takes a unified step. It takes a bold step to bring this forward and to recognize that this is a legitimate piece of the puzzle.

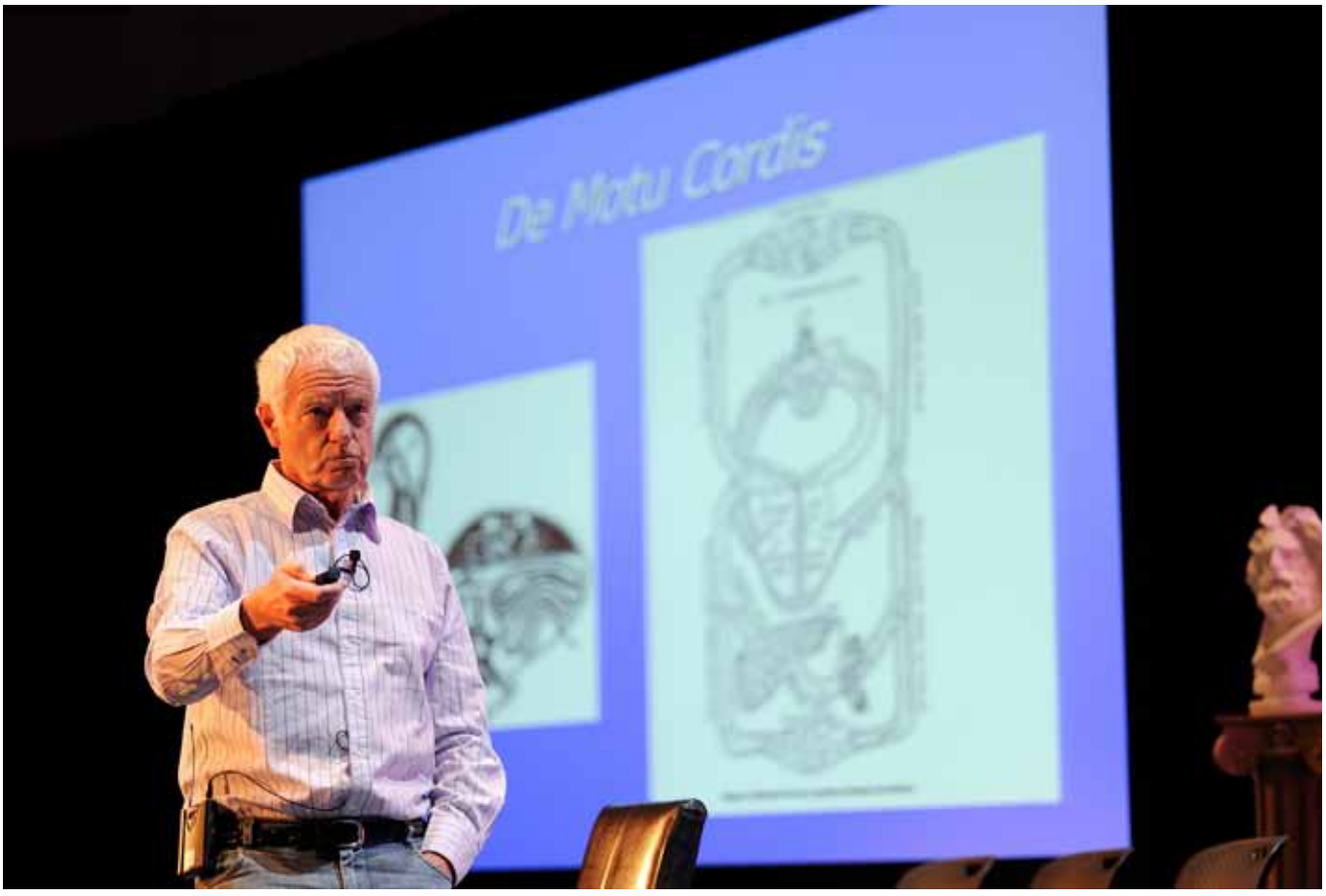
That idea of science and miracles, I love that, science and miracles. I am quite the geek. It's funny that my computer didn't work today, because I am quite the technogeek. I am also the research geek; I know much of the latest research that is coming out of medicine right now. But I am also the miracle geek. I mean, it's just such a joy to find out some other little piece of that puzzle and to bring it forward. That appreciation for what we don't understand, the appreciation for the mystery, the appreciation for living in the both/and instead of the either/or is what I think is going to push this forward and bringing our hearts, our minds, our souls into central alignment with our work individually and together.

And so at the end of this talk, I have a slide that says "There can be Vitalism in medicine" if we do our part to bring it in. And that's it!

Rob Scott, DC PhD

Thank you, Dr. Roberts.
All this raises questions for me about the therapeutic continuum, where change happens. We may say, 'medicine doesn't have vitalism,' but that doesn't mean that you can't practice medicine and be vitalistic. Or does it? You also raised an interesting question; you said 'most MDs get a piece of the picture, but the system doesn't allow it.'

We began this morning talking about changing the system and market needs. Dr. Kaeufer showed us the slide identifying levels 3 and 4, and where patients and providers were desiring to get out of those levels and into levels 1 and 2. So there's definitely that consumer need; so there's then the question: when does the consumer need—particularly when talking about a stakeholder of a health care provider who desires to have this interaction—but the system doesn't support the interaction, at what stage does a threshold get met where the desire in the providers change: to seed, to allow that encounter to happen? I think those are some of the questions we're interested in as we go through this conversation as well, so thank you again, Dr. Roberts.



David Koch, DC Vitalistic Philosophy – Chiropractic

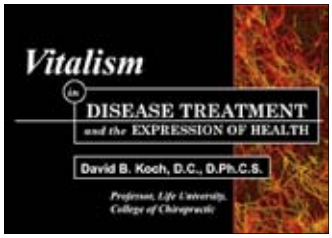
Chiropractic philosophy would say that Vis Medicatrix Naturae, this innate intelligence, is completely and totally natural. It's as much as part of the natural universe as the energies and matter. But it's not energy and it's not matter. Then what is it? Several other people have used the term I use: it's a consciousness. It's thought.

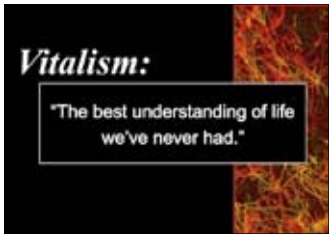
The reason why Life University has dedicated itself to be the preeminent vitalistic University on the planet is because coming from Chiropractic's original metaphysical philosophy and approach, Vitalism became such an intrinsic part of what chiropractic was that it spilled over into chiropractors' lives and chiropractors' patients' lives so that we couldn't separate out a vitalistic perspective from what we were doing as chiropractors which we were being part of the healthcare professions. And yet Vitalism changed us so much that many people for many, many years saddled chiropractic with Vitalism and accused chiropractors of being vitalists and closet vitalists, religious wackos and everything else. So my objective in talking to this assembly and talking to my fellow presenters is the possibility that we could have an actual dialogue to look at what role, what positive role Vitalism might play in health care if we actually, any of us or all of us actually had the courage to try the idea. In fact, to talk about that Vitalistic concept.

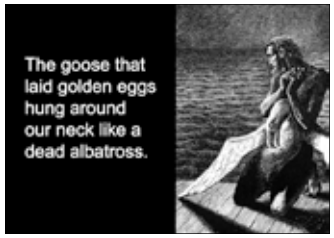
And I'm going to tell you something, I'm going to rat myself out. I'm not a closet vitalist folks. I have been a vitalist, an absolute fanatical committed vitalist all my life even before I knew it. Even before I studied enough philosophy to know what that meant. When I became a chiropractor, I was delighted to discover that chiropractic's philosophy also included and was fundamentally founded on this basic perspective that I just thought was the way everybody thought about life. So when I talk about Vitalism and disease treatment as an expression of health, it is literally not first as a chiropractor; it is literally first as a vitalist and what that means. But guess what, I was born in 1952, which means I've got to be a modern vitalist. I'm not old enough to have been an old-fashioned vitalist, because I grew up right through the baby boom and Vietnam War and nuclear power. I learned $E=mc^2$ as a fact of life not as a radical new theory in 1904.

So my talk is about Vitalism and the role that it could play. We're going to look at it. [I will] go through this whole thing again, because I knew that a lot of people would be talking about the problems with Vitalism as a philosophy. And I want to readdress and set those aside. So we'll start there and we'll talk a little bit about what I see Vitalism really meaning, from my perspective as a Vitalist. And there's going to be some relationship to that with chiropractic as a chiropractor and as a health care provider. And then maybe say, 'Okay what does that mean?', and 'Does that connect with some of the things I've heard today?'

I described that Vitalism is the best understanding of life we've never had. And the reason I say that is because the way I read history including the history







of philosophy, Vitalism is the oldest idea about life on the planet. It's not the newest. It's not some new idea. We came up with the 'let's call our conference *Vis Medicatrix Naturae.'* That's Latin, folks because those Romans knew about it and they gave it a name. I read… I read the Greeks and find out they were talking about it. You know Hygieia said, 'Look to the sources of life itself. Live according to the rules of life itself and you'll do fine. Let life express through you and you'll do fine. It's an old idea so why do I say it's the best understanding of life I've had. Because we've never been able to really truly embrace what Vitalism says. We never really been able to take responsibility to subjugate our own understanding of life to the concept that life better understands itself better than we do. So having an idea isn't the same as owning it, and I don't think we've been willing to own Vitalism yet. And then when I think about myself as a chiropractor discovering that I am a vitalist and learning biological theories that say Vitalism is a bunch of hooey.

I think of Vitalism [as] the goose that laid the golden egg because the vitalistic concept is the most valuable concept I own in my professional life and in my personal life as far as the usefulness of concepts. And yet I've also been saddled, and Vitalism has been an accusation. Something that holds chiropractic back from being accepted by being real[ly]scientific because it's Vitalism's got to deal with all that.

Say Vitalism and watch the biologist head curl and shake but other people will address that today. But here's the thing, I think the problem with that partly came from the birth of Vitalism. The time frame in which Vitalism occurred. Vitalism when I first started out was, as others have mentioned today a response against our increasing understanding of the mechanisms of life: when we could look at a human being and see it was alive, but not know what was going on inside of it. Not understand the mechanisms and the processes and the forces of life. But we could look around and see life as a meaning. We could look around and 'see' a punch in the nose.

We could look around and start to understand the physical quality of forces that animated the environment we lived in. Then it *looked* like there was some other kind of force in living things besides those physical forces. There had to be some special and different force because the things life did, the movements it carried out were different than in the movements that non-living things carried out.

> "I think of Vitalism [as] the goose that laid the golden egg

So they called that idea the *Élan Vital*, the vital force. And I've heard it called the *Vis Medicatrix Naturae*. 'Vis' in that sentence means power, force or energy. And we've talked about it. And we've wrestled philosophically. We've wrestled conceptually. Is it a different kind of force? Life in its properties, its special properties as a result of a vital force. Different in kind from all physical, chemical and electrical forces. That created a problem. Using the concept that life was a force created problem. Here's why.

Early parts of last century physicists really tried to get a handle on forces. They really started to understand energy. As a matter of fact, they looked around and the more understanding of energy they had the more it looked like, 'you know I see electricity in a lightening bolt but I see electricity in a human body. I see a chemical reaction in a beaker full of water, and I see chemical reaction occurring in the cytoplasm of the living cell. I see a mechanical machine that if you apply force across the joint with a mechanical advantage it creates a levered action and I see an elbow working the same way. So the more we understood about the mechanisms of life the more we could say that that *Élan Vital* can't be any different that what we see in the natural world. As a matter of fact, those forces,

those living forces are natural. So if the vitalists keep saying there's other force besides the forces of nature, forces of electricity, mechanical forces, chemical forces. What are they talking about?

Is the *Elan Vital* an unnatural force? Is it a supernatural force? Is it an extra-natural force? Is it force that life comes outside of nature? Can life only be understood if we access the concept of a creator that exist beyond nature? Those are all good questions. As a matter of fact, the problem is the scientist, remember the physicists. They then proceeded to dismiss Vitalism because they said it's just a religion. The best you could do it's a religion. The best you could do it's a metaphor. It's nothing. It's not talking about anything *real* because the real things are all part of nature. It's not part of nature, it's not real.

That was really unfortunate. It was really actually believe it or not, in my perception, was nothing more than unfortunate choice of words. It's an unfortunate choice of words. *Élan Vital* said that what we were talking about was the vital force. But in fact the forces that run your body can also be found running storm systems and eroding mountains. Chemical reactions, physical reactions, electrode reactions, mechanical reactions. And yet the vitalist is still saying yet even the more we discover about all the forces that are interacting in here, there's something else still at hand.

> *Ian Vital* said that what we were talking about was the vital force."

So Vitalism has become an argument of the 'excluded middle' because here's where it is. Either you're really a vitalist. And a vitalist mean reference to a spiritual or a super natural force or it doesn't exist at all.

That's the excluded middle. And that's the excluded middle we are trying to re-put forth the vitalistic concept. But we're going have to define what it really means other than some different, special, unique, unnatural kind of force we're dealing with because we're not waiting around until we discover another force. We can pretty much start to explain how the body works with the forces we already know about, but that's not the end of the discussion.

Theological, theological Vitalism was dismissed as unscientific. This was the death of a thousands cuts it was referred to earlier. Vitalism discredited as anti-scientific whackos by pretty much everybody. That's the excluded middle. We just got put into the category. So can we move philosophically conceptually before we even start to move as clinicians and health care practitioners toward a more modern understanding of what Vitalism might mean? There's a lot of moving on this. You've heard every one of our speakers refer to the fact that even though the classic supernatural Vitalism got dismissed, you know. I've heard quotes that kind of chilled me because they made me sound like I was complete idiot. If I thought this stuff could be real, right. I'm not an anti-scientific whacko that I know of, but I'm a vitalist so I'm going to have to explain myself differently.

And in fact when we put this on, one of the things that happened to this conference was the name got changed from the Vitalism Conference to the *Vis Medicatrix Naturae* Conference. And a friend of mine that's in this room right there, Ian, I can quote you the line out of Ian's book where he says, "You know, more modern examples of Vitalism do exist. For instance, illustrated by the concept *Vis Medicatrix Naturae*."

Let's lower the rhetoric. Let's get out the fight whether we have to be religious to be a Vitalist or anti scientific and just say can't we just all agree that even the Romans named the Healing Power of Nature. And you know I love that term, but here's the thing. I'm going to make the case today that conceiving of what Vital-

ism talks about only as the healing power of nature isn't good enough because it's not complete enough.

It's not a complete concept of what a modern approach to Vitalism might be. It's a great start. The Healing Power of Nature because it's such an experiential thing. You could feel it in yourself you know. If you cut your finger and it's just a paper cut and you get a Band-Aid out. The band-aid you're unwrapping it and then you look in the box that says, "If this cut is bad enough, consult a physician." Right? Like you know if you're bleeding from…don't just put a band-aid on the jugular cut. But if you just have a paper cut and you take a band aid out and you wrap it up and you don't consult a physician because you're really not that concerned about it, so what are you consulting? Who's the healer here? Well, this stuff. This Vis Medicatrix Nature.

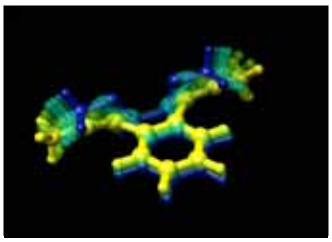
I just cut myself. If something doesn't happen. I'm cut, but it will heal because I know that in me is the power to heal even if there's no doctor at hand, right? Right? And you know what, if I slash my jugular vein I would hope that one of our great emergency medical professionals could come and maybe put direct pressure on it. And maybe sew it up for me. Thank you very much. And if they couldn't get to me in quite enough time then I lost maybe five pints of blood. Maybe give me a transfusion to kind of beef up my blood supply and save my life and yet what would actually heal the laceration of my jugular vein? Right? Sutures don't heal anybody. Replacing five pints of blood with someone else's blood is only a temporary crutch while you replace it with your own blood. And on you go, *Vis Medicatrix Naturae*. So it's a great start.

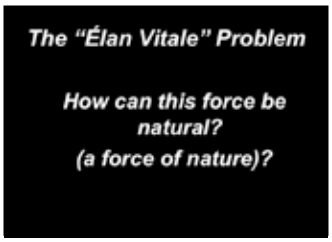
As a matter of fact, I would like to propose that we could take possession of this concept, really own it and maybe have the courage to insist that people start applying it. This is a quote that I just really love because I read the book it came from and then I read the other book that it was quoted in and it says this, "The power of the mind and the body to hypnotize away any disorder as soon as the existence," Louis Thomas believes, "of an inner controller a kind of super intelligence." Now I love it because it's put in quotes.

> The power of the mind and the body to hypnotize away any disorder as soon as the existence, Louis Thomas believes, "of an inner controller a kind of super intelligence.

Let me tell you the story of that, it's out of a book called 'The Medusa and the Snail' by Lewis Thomas who is an M.D., who's a neurological researcher, and who access to an experiment in which patients were told, patients with warts were put into hypnotic trances and were told that warts would go away on one side of their bodies but not on the other. And guess what happened within 24 hours? The warts went away on one side of their body and not the other. Now I had warts when I was younger and it took the Compound-W and I used to dig at it with my nail clipper and I finally went to a M.D. who took the little old galvanic zapper and zapped each one and they finally went away. But in this experiment, people just on the basis on the suggestion that they could do it eliminated their warts. Lewis Thomas said there is something going on here that is inside the person. And we have to recognize that. It's like there's a super intelligence that exists in each of us. Those words right there are the most powerful words I've ever read, but they didn't surprise me. They didn't come as a shock to me, because I'd remembered when I was a young boy my chiropractor was saying, "I'm not going to really heal your body, I'm just going to correct the subluxations, remove some interference and—wait for it. Your body will actually heal itself. That comes from within."

By the way, this isn't done. Self-healing seems to involve the ability to make contact with this inner





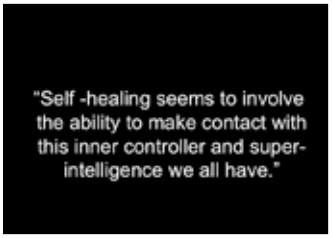
controller and super intelligence we all have. These are just ideas. Lewis Thomas came up with this; chiropractic philosophy says that same thing actually. I've heard it from ayurvedic. I've heard it from holistic healing. I've heard it on this stage from everybody so far up here. Right? Just seems to like if we could just get in touch with that again things would do better. Maybe we could help people get in touch with it. But the healing is coming from within. What happens on the biological level when we do this is the scientific question remaining to be answered. Justin Blair quoting Lewis Thomas.

The problem with this proposition, I call it the ego problem. And especially the problem with this proposition when we talk about healthcare providers is that the desire of any healthcare provider is to help you with your problems. Which means the desire of any healthcare provider is to somehow if we could possibly do it, see if we could stand instead of, in place of, to assist or help or even perhaps if we could just get it out of the way with some anesthesia take over and run the body for a while so we could help. How far does that ego go?

It goes all the way to complete domination. Right? What would be the abuse of a healthcare provider? Let me take over your body and run it so much that you don't get to play a role. You're not involved. I've had surgery, you know, I'm glad my surgeon knocked me out before he cut my eyes open and rearranged things inside there. But I'm also glad then I woke up and healed what he had done because I can see better after the surgery than before because I had healed what he had done. But for the healthcare provider, the problem with acknowledging and recognizing the super intelligence inside the patient's body is that it puts you in a funny position, doesn't it? Who's doing the healing here? Who's the doctor? Who's the smart guy? That's an ego problem folks. As a matter of fact it's such a fundamental ego problem that I can describe it in vitalistic terms. If you think that your brain can be intelligent and conscious and clever, we call that your ego that it's aware of itself. I'm right now aware of myself thinking as I talk this lecture to you.

I'm aware of you and I'm assuming that inside of you there is a little brain that's going on and looking up at me and being aware of me. And if you think you're intelligence is that thing that's going on in your brain, let me ask you this right now. As you're watching me are you paying a lot of brain energy running your own body? Anybody been paying attention to your kidneys? Anybody paying attention to the microbial environment that we're right sitting in the middle of and have to heal from right? Because we're all breathing each other's microbes, oh my gosh! Your immune system's going 'I've gotta get busy here.' So I've got a brain that thinks it's the intelligence looking down at the vehicle it rides around in called the body saying, "Oh, it almost seems like this thing is kind of clever, too." Well actually if your brain is a functioning organ of your body, wouldn't your body have to be more intelligent than your brain is? Just questions, right? It's the super intelligence within the patient not to healing the patient but also is the patient. Interestingly enough, that's actually what Vitalism talks about.

We got a problem. Either the only mind at work in the world is the human mind. That's the ego human position. Or it's not. Or there're other minds at work. For instance, either the only mind in my body is my brain mind or it's not. Either nature is either mindful or it's not. And by the way, if nature isn't mindful, *Vis Medicatrix Naturae* doesn't mean anything. It's no meaning to it. Okay. Can the consciousness of one organ in the living body be greater than the consciousness of the whole body of which that organ is a functional part? Vitalism proposes no. Vitalism proposes that not the forces of the body but that the consciousness of the body is itself a separate unique thing. As a matter of fact, we in Vitalism are simply personalizing



it as much it or more than we personalize our own consciousness. We give it names. We even capitalize it. I kind of like the name *Vis*. Right? Thank you.

I like the name *Vis*, good name for it. I like Fred, too. And it would mean the same thing if I called it Fred instead of *Vis*, wouldn't it? As a matter of fact, what should I name it? Well you know, what Chiropractic named it and I'm not arguing for or against the name, but as a philosopher you've got to have a name for things. It named it the 'inborn wisdom of life.' Actually more correctly it named it the 'inborn problem solver of life,' because the Latin word *intelligere* actually means solving problems it doesn't just mean healing it means solving problems. Slide 28 And clearly life solves a whole lot more problems than just healing. As a matter of fact if we were to actually attribute to the person's own body, to our own body, the level of problem solving ability that Vitalism suggests exists it would actually have to be applied in a whole lot more areas than just healing. It wouldn't be medicine, it would be living. Ayurvedic talked about 'right duty,' right? Not how to get over being sick, but how to discharge your duties properly by knowing who you were inside expressing what that is inside yourself.

This is actually a bigger concept than this *Medicatrix Naturae,* which is why I'm going to say I'm a modern vitalist. As a matter of fact, I'll give you another name. I like Latin. How about *Vis Intelligere Naturae*? The problem-solving power of nature. I liked your comments. I don't just want to necessarily help people when their bones are broken. If I'm going to be a 'help you live' kind of person, I want to work with your own ability to solve problems. Which by the way, isn't just invested in your brain because your body is doing that every minute of every day. Must be a bigger power there. So actually I would say I would rather this be the *Vis Intelligere Naturae* conference than the *Vis Medicatrix Natuare* conference because I don't want to confine the concept that Vitalism proposes just to the questions of healing. If I got a person who really wants to run the four-minute mile in three minutes and fifty-two seconds, I want to help that person bring that out of themselves. But I'm not going to give them rocket shoes because that's not really doing it. I'm going have to help them find that in themselves. So again it's a different thing. What is that in short? It's a recognition of a respect for the enact intelligence of every individual and form of life. Now one of the things chiropractic got accused of and probably justifiably so is capitalizing the name 'Innate Intelligence' which made it seem like a separate being. Kind of the same problem we had in Vitalism we said a vital force, different in kind. I love the comments, where I think it was you again who said, 'We think of that *Vis* as an equation. We think of that *Vis* as the thing that's balancing all things in the body.' BJ Palmer said that innate intelligence works like a banker. Taking in all accounts what your body needs. Balance it against what your body can perform. Balance them out. Learn what the body needs. Sends the signals down from the brain to tell the body what it needs to do to meet its own needs. Right?

The problem solving ability of a living thing, its inborn intelligence, its *Vis*. But now listen, I don't use words like 'spirit' and 'soul' because remember that albatross? If we go spirit and soul then scientist hangs us out, says 'nope.' As a matter of fact I'll be explicit and say chiropractic philosophy would say that this *Vis Medicatrix Naturae*, this innate intelligence, is completely and totally natural. It's as much as part of the natural universe as the energies and the matter that your body makes out. But it's not energy and it's not matter. Then what is it? Several other people have use this term I use that I've used, it's a *consciousness*. It's thought. If I think my brain has a mind that could have a thought, why do I have such a hard time thinking that my whole body has a mind that has thoughts? Actually it is completely indefensible not to conclude that your mind, which is a more complex brain than

your neurological brain, has just as much thought as your brain and more because it has other thoughts. As a matter of fact, current physiology tells us you got a whole new brain. How many of you have heard enteric brain? Anybody into the enteric brain? Well, what do we have to figure out? You've got a new brain. You've got this brain.' You've got the autonomic brain. You've got a conscious brain.

Now you've got the enteric brain. Because we're adding more ways that things are connected which allows a consciousness to emerge and exist and function. Guess what? We're just building one step at a time until we're going to get to the 'body brain.' Gustav's book, 'The Body has a Mind.' That's actually the vitalistic concept right there. Not a spiritual concept. But it's also not a physical concept any more than your brain's mind is physical. Your brain's mind is considered an epiphenomenon of the physical things. But you could also say your mind is a primary thing. It's a primary aspect of your brain. Okay, then how are you missing the fact that the brain, the body that the brain is a part of, also has that. Straight vitalistic proposition. Vitalism is not a force. Vitalism is not a name for something. Vitalism is, and someone else said this and I'm sorry I'm not attributing this properly, an *ethos*. Oh yes, Monica said it was an *ethos*. It was a belief. It's a recognition of, but what is it really?

It's a recognition of the natural. Not supernatural. Not inexplicable. Not some other class of phenomenon. The natural, self developing, self maintaining, self evolving and self healing abilities of each and every individual living thing and therefore of life itself. The word *natural* is italicized intentionally to emphasize, to make clear that Vitalism does not require the acceptance of any particular belief about what exists beyond nature. Although, it also doesn't mean that Vitalism somehow contradicts the possibility of soul, God or anything else. Vitalism is the proposition that wherever that comes from, and however it expresses itself, we recognize that there is that wisdom and that it's intrinsic to us. Someone else said earlier a beautiful thing, they said, "You could be sick, but the *Vis* wouldn't loose power." You can't reduce the strength of your innate intelligence just because your body is damaged. Your innate intelligence may not be able to express itself as well through a damaged body but it hasn't weakened innate intelligence. My innate intelligence isn't any stronger than your innate intelligence because that principle we're talking about isn't energetic or material but it's intrinsic to every natural phenomenon.

> The Body has a Mind.

Now having said all that, I simply have to propose: do we in fact want to adopt that principle? Oh, let me go back because I missed a word. Oh, whoops wait. The recognition of and what else? If you recognize the body is more intelligent than its own mind, than its brain mind, would you also have to recognize the body of someone else is more intelligent than your brain mind understanding of it? Yes, you would. Yes, you would. That's why we are using deductive logic because if we say 'no, no, no, I think my brain mind is more intelligent than your body mind,' I'm going to tell you it doesn't make any sense to me. As a matter of fact, I can even remember that my brain mind didn't know squat about how to heal my finger. It only knew enough to put a band-aid on it to keep it clean while it healed. And then if you think your brain mind is better than my body mind, you heal my finger. This is..this is just, what are we talking about? And we think at Life University that that's what we're talking about. We're talking about not a philosophical argument whether there's some new force, but a fundamental proposition that says if we're going to be in the field of healthcare, we better know what health is. And health, everyone on this platform has said, it's actually the expression of the body *itself* creating itself. Even when we go to start to interact with it, we better

recognize that because we could help or we could get in the way. Couldn't we? So the best way I could possibly work as a healthcare provider would be first to recognize that.

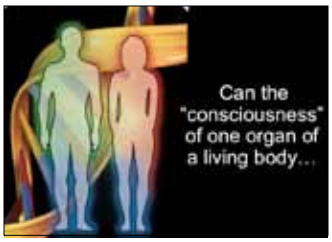
So, my next body of comments are going to be this. So if we really became vitalist, which means you can leave the arguments about what it means. Me and Monica can have those discussions. I love Monica's philosophic presentation. Got me all excited. Catergorized different concepts of Vitalism. Thought about the logic of it. That's what philosophers do for a living. Healthcare providers need to be in the business of making the right assumptions. Of holding the right beliefs about the very living things that we propose to interact with. So I'm going to say that, we can accept that or not. But I'm going to say that if we want to call ourselves vitalist, and we want to talk about can we make a vitalistic healthcare profession. Can we contribute some Vitalism to our healthcare profession? That's what we have to contribute. That's what we have to stand behind and defend. That's where we have to say look, this is where the rubber hits the road. In any healing interaction, it's actually the patient that's doing the healing. Even if I have the privilege of helping. And by the way, thank you, Ian. I love it the way you put that and I think you're spot-on. Because what Dr. Coulter also said is, that changes the nature of the doctor patient relationship.

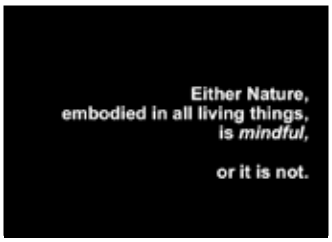
It changes the nature of the doctor relationship. Trouble is if you say healthcare, you immediately get see everybody go giddy over the trillion dollars U.S. alone is spending annually on sickness care, disease treatment and dying. So the next thing I've got to talk about, I'm going to talk about Vitalism and healthcare, is what do we mean by healthcare and how far off are we coming from this non vitalistic perspective, that people are just machines that we get to fiddle with? Slide 32 That we're actually spending two trillion dollars in the United States on healthcare but it's not really about how can that super wisdom express itself better, it's about how can I fix this person when they're broken. The fixer. That's the trap that a healthcare provider falls in if he doesn't properly attribute where health comes from. Your body's not working right, someone said it earlier on the stage, you're body's not working right let me fix it. But Vitalism says that can't happen. You could help my body fix itself. You can't fix it. Your brain intelligence, as a matter of fact, the combined brain intelligence of the entire human species using strictly empirical methods of thinking and reasoning hasn't yet figured out how the human body works enough to run it, make it, repair it, build it. And yet the human body makes, builds, repairs and runs itself every day. So we're spending two trillion dollars on someone telling us they're helping us do what

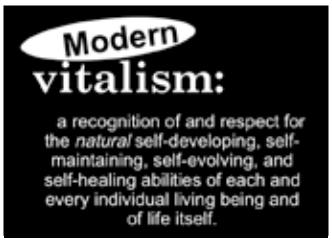
> But Vitalism says that can t happen.

we do on own if there is not a problem. We are, no criticism intended. That's the way the economics of it is, right? We ain't buying any health from that because health comes free from within you as long as that *Vis Medicatrix*, *Vis Intelligere Natuare*. As long as the power of nature can simply express itself through you. Right? First nine months, momma doesn't even know what's going on and it builds itself inside the momma and pop and out it comes. And twenty years builds itself and all grown up. Amazing. But here's the problem: Slide 34 with healthcare defined by medicine as the scientific diagnosis of disease, how can we operationalize Vitalism into that system?

Well the fact is, Vitalism is not the support for or the criticism of any or every one of the procedures, and treatments, and processes, and suggested ways we help ourselves that we've been talking up on that stage. That's why I'm going to talk about Vitalism the whole way through before I even start to talk about chiropractic because chiropractic isn't Vitalism. Chiropractic is the profession that, based on our funda-





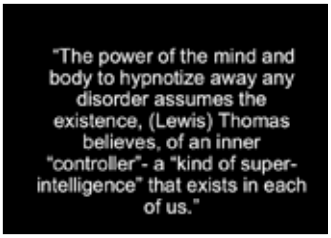


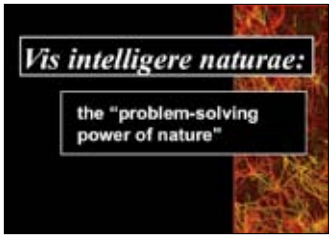
mental vitalistic respect for the body's own healing abilities has chosen a different way to help it. Here's how I want to help my patient, because I recognize the vitalistic proposition. All I want to do is get the interference out of the way because I actually trust my patient's own enact intelligence to be a better healer than I am. And I'll stand by that. Does it take courage to stand by that? Yep. That original courage to say, 'whoops, the body's wisdom is greater than my own even though I'm the doctor, I'm the healer, I'm the smart guy.' None of that is actually true. I'm just the helper. The body's wisdom is greater than mine. Chiropractic's only one possible expression of that fundamental proposition. So let's talk about how the fundamental proposition would actually change healthcare because it would. Placing the healer within the body redefines the healthcare practitioner as adaptive assistance provider. You can laugh, but I don't see it any other way.

When my surgeon, I've had retinal detachments in both eyes, and I went to a surgeon and said can you help me? Because by the way, I don't know why my retina detached. Apparently my innate intelligence wasn't on the job that day? No, maybe it just met the limits of its abilities to express itself. Maybe it didn't have the right nutritional components. Maybe I get hit in back of the head. But when my retinae detached, I had a guy who was willing, in a very clean surgical environment and with some very precise tools and with incredible skill that he had developed by training, to wound my eyes. My eyes were broken so I asked him to break them some more. I'm characterizing it that way specifically because that's all my surgeon could do for me. He told me that he couldn't repair my…that he couldn't heal me. He told me that all he could do was cut my eye open and suck the juice out. Lay my head back so the retina could kind of float back and laser burn it down like twenty-five hundred times. Pump my eye full of air. Wrap a rubber band around it. And then push me out the door and say, 'Come back in six weeks and let me see how you're doing with that.' And by the way, his intervention was not vitalistic or unvitalistic. The Vitalism was in me. He just was clever enough to figure out how he could do all those horrible things. Doesn't that sound gross when I describe it? All those horrible things to my eyes and yet trust. Was my eye surgeon vitalistic? I think he was, because I think he was willing to cut my eye open and suck the juice out of it, wrap a rubber band around it on his firm belief that my body would have the capability to heal the damage he just did. And that when it healed, it would actually heal so it could see again. Thanks you very much to doctors. My two eye surgeons.

But where was the Vitalism in that whole interaction? It didn't come from my healthcare provider who was a surgeon; he just did a controlled wounding. He did! No comedy intended. It was a really fancy wounding. The second one took him 7 hours to wound my eye that way. And here's the thing, it's taking me about a year and a half to actually heal my retina enough that I could actually see better than I could see before the surgery. But if the surgery did the job I should have been able to see better as soon as it was done. But no, it took about a year and a half of healing. *Vis Medicatrix Naturae*. In that case, I'm going to say *Vis Medicatrix* because I know what my body was doing was healing that eye damage. Could I have a vitalistic perspective on that incredibly traumatic medical intervention—because that what it was? Because that's what it was, trauma. Because he wounded my eye with a scalpel and a laser. Yes, I have a completely vitalistic perspective on it. As a matter of, I'm going to give you both of my vitalistic perspectives on this.

First of all, as a possible surgery subject, I want to make sure that my own body mind, that super intelligence that Lewis Thomas claims is in me. I've been hearing about from chiropractors, those crazy whackos, enact intelligence all my life was able to





do what it had the capability to do. So I wanted to make sure I was healthy and my diet was good, I was unsubluxated. My spine was checked, clear. All of that didn't have anything to do with healing my eye or not healing my eye or having surgery or not. I just wanted to make sure that..that *Vis Intelligere Natuare* could come through. Express itself. But by the way, I was doing that before my surgery too. I don't just want to wait until I have surgery before I make sure that's happening.

By the way, my second vitalistic perspective? I really wished that I had known that my surgeon was expressing his *Vis Intelligere Naturae* as perfectly as he probably could. I wouldn't want to have any problems that you could have helped him with. I want him to have the problems fixed before I come in, right? Do I want my surgeon to be expressing his innate intelligence as perfectly as possible before he proposes to do surgery on me? That's a healthcare relationship, provider, providee. The Vitalism in it is all about whether that body is expressing that fundamental capacity it has to solve its own problems and each case the Vitalism is internal to the person you're talking about. So Vitalism relative to a healthcare provider, I want every healthcare provider in this room whether you're a chiropractor, whether you're Ayurvedic medicine, whether you're naturopath, whether you're a medical doctor, to be as fully expressive as your own vital consciousness—while you're in the healthcare situation, but then let's talk about how it changes the healthcare situation. It actually creates a couple of new categories. As a matter fact, now I can kind of sort out some interactions of therapies.

Therapies that work to overcome and try and take control of the body itself. Sorry I picked a picture from House. Am I criticizing it? I'm saying no. If you recognize the body's own wisdom, then sometimes when we go to help the body we actually do things that harm in the hopes that it will be able to heal better afterwards, right? Would you talk about Peter Fisher? Every drug is a poison to start with. We just have to give it enough so that body can heal it. Can deal with it. That's the first category. The second category is the one's nobody's talked about yet.

Interactions that work with the body to help it express its own self directiveness and to heal itself. I love my pictures, don't think they're any prejudices behind these because there's not. I've been in that surgical room. Thank you. I'm seeing you today with medically-intervened eyes, and I appreciate exactly what benefit they gave me by wounding me because they were willing to trust my own healing capacity. But I also appreciate the concept that we could review each and every one of our therapies and ask about this, "Is this therapy made to try and control the body, change it, or direct its activity, or is it directed to help it elicit, better bring forth *Vis Intelligere Naturae*." Here's the really wild thing. That concept of Vitalism actually brings forth a whole new category. Slide 36 A new possibility. A possibility I don't see anybody talk about, and that is health care, as defined as 'the diagnosis and the treatment of disease,' plus Vitalism actually brings forth something that doesn't have a name so I made up a name. That's one thing philosophers have the privilege of doing.

This may be the first time you've seen this word. I've actually haven't been writing about it a lot, but I've been talking about it a lot because I'm a good talker as you may notice, metatherapeutics. The one thing I've noticed that us healthcare providers to get pass is thinking that providing healthcare, what we really mean is that 'if you have a problem I'm going to define and identify the problem and then help you with the problem.' That is just not really the full extent of healthcare. As a matter of fact, let's just call that 'condition care.' Disease care. Disease treatment. And by the way, does it underlie the whole concept of healthcare? No insult intended, but I've heard that strongly

in Ayurveda. I've heard that strong in naturopathy. Guess what folks? I've heard that strongly in chiropractic? When do you have to go see a chiropractor? If you've got low back pain. If you've got a headache, right? Now by the way, if you went to see a chiropractor with low back pain or headache, and the chiropractor checked your spine and adjusted you, he wouldn't really be treating your low back pain or headache he would be removing interference to your body healing itself and then hold his fingers tight and say, " Ooh, I hope this works for this guy. I hope his innate controlled. If enact can get rid of that lower back pain, I'll look very good." Because chiropractic intervention is really much more remove the interference than try to take control of the body and run it. He's in category two not category one. It's still therapeutic though.

So what does metatherapeutic mean? It means if we're going to talk about Vitalism and healthcare we get the privilege to have a way to talk about health in healthcare as well as disease in healthcare. Because as a healthcare provider are there things I could do to you? You mentioned some wonderful ones that would actually address a better expression of my health rather than waiting until I have a problem then *Vis Medicatrix Naturae*, heal the problem. Well, with the bigger idea of who the healer is, yes, it does mean that. So there's such a thing as metatherapeutics.

Therapeutics, look it up in any dictionary, procedures directed towards the objective of treating, curing a specific disease or condition. As a matter of fact, diagnosis strives that process because to put up a therapeutic intervention, guess what you have to do? Any and every therapeutic intervention demands what? First, you would identify the problem, doesn't it? Right? Because the therapy for one problem may not be the same therapy for another problem, right? So, identify the problem. Tell me what you're going to do about it. That's the therapeutic system. Chiropractic, I was going to say Vitalism here. Chiropractic can be considered therapeutic in one respect. If chiropractic identifies the subluxation as the problem and proposes to adjust the subluxation. The only therapy that's for is to get rid of subluxations. And then the body starts to heal better, and then the cancer gets better. And the diabetes miraculously resolves, we have spontaneous remission. No, we have the expression of the body's fundamental wisdom.

So what is metatherapeutics? Metatherapeutics is interactions that help to enhance the expression of the body's enact intelligence in a metatherapeutic arena. Performance in all areas of life and disease other than disease and sickness. Life University has some programs in how to help athletes be better athletes. Exactly what condition is that treating? I guess it's the condition of running too slowly. Right? What's the diagnosis? Before you adjust an athlete to make sure he could run that mile in one tenth of a second faster from within himself. It may not be any diagnosis. That benefit goes way beyond defining a specific condition or problem. So I think that the first and most important thing that actually getting an honest and understanding discussion of Vitalism, the *Vis Medicatrix Naturae* that we're all saying is a part of every person's body. It's actually the driving consciousness within every person's body. Reflected in physiology. Reflected in healing. Reflected in thinking, and loving and emotions. Reflected in spirituality. Fundamental living consciousness to be expressed better, the first thing it does is it breaks the stranglehold that strictly a therapeutic approach has on healthcare right now. And opens healthcare up conceptually, to the possibility it could actually address 'where does health come from' rather than 'what disease you have and how can I help you with it.' It doesn't eliminate therapeutics by the way. Metatherapeutics looks like this and therapeutics fits right in there because everything that could possibly go wrong with your body is also part of your body functioning, trying to live its life. Metatherapeutics is a bigger concept of healthcare. 'Meta' means

it 'goes beyond.' It's not non- therapeutics. It's not anti-therapeutics, by the way. I am not arguing for the word you could call it 'Fred,' but am I arguing for the concept. Yes, I think it's the first consequence as an attitude towards our fellow human beings.

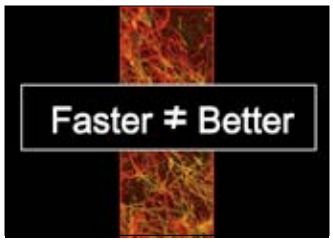
So respecting and recognizing the primacy of the body's own innate intelligence and its priorities would turn our current healthcare priorities upside down. Now, I'm going to say respecting the primacy, because we live in the healthcare system that right now accepts the primacy of our scientific understanding of the body as the operant intelligence working. Doesn't it? Right? Who's named the doctor? Doctor means *learned*. Who's learning in a professional interaction? The guy outside. Vitalism says, and chiropractors have said this, philosophy simply compels the logic of it, says the doctor's really within. The doctor is within. First. Right?

> It goes both ways. It s not a contradiction.

So, if we actually gave recognition and respect to the primacy of the body's own innate intelligence, it would turn our priorities upside down. This is what are current crisis intervention driven healthcare looks like. That's our number one priority, two trillion dollars. Ninety percent of which is spent on that. That's our second priority. How big is integrative healthcare? How big of piece of medicine is it? Ten percent of it? That's good. That's great. Wouldn't you like to see it be fifty percent of it? And by the way, how much of our healthcare system is spent on metatherapeutics? Don't say nothing, because every dollar we spend on water purification is a metatherapeutic dollar, isn't it? What are the healthcare benefits? What disease does water purification plant treat? Well, it prevents cholera. So that's good, right? That's why we clean up our water, right? Actually water purification is a metatherapeutic intervention, right? Something we do about our environment that has benefits way beyond the thereapeutic. What's the diagnosis that water purification is the treatment for? Nonsense. But that's also our lowest priority in dollars spent. Absolutely. This is what I think a vitalistic healthcare system would look like. I think it would look like one, two, three. Is there a role for that? Thank you for my vision. Yes. Is there a role for that? Yes. If you're going to have to help me, I'd like to help you have you help me help myself before I'd have to take over and run it. And number one, you know, I've actually spent my life trying to stay healthy rather than hope that when I get really sick there'll be someone there to pull my chestnuts out of the fire. But if I get really sick, I want someone there to pull my chestnuts out of the fire. You know. It goes both ways. It's not a contradiction. So I'm going to finish up with just some thoughts about how thinking vitalistically would also change the way we assess patients and we approach helping them with problems.

Now these are very general. You know. If we were going to actually come up with some kind of operational systems. Which I've heard some operational systems come out of the different disciplines. Chiropractic has some very specific ideas about how to do this. So these are only general principles because I'm talking about Vitalism. Basic principles of any Vitalistic assessment.

Faster is not necessarily equal better. I know you could take Tylenol and it'll take your headache away in thirty-seven minutes but if you take Bufferin it'll be thirty-six minutes and that's better. I've heard that Neosporin makes my cuts heal faster and that's better. But in fact the body heals itself in its own time frame and sometimes if we're vitalists, we are going to ask ourselves if that time frame a better time frame than my impatience would dictate. Maybe so. We have to challenge that assumption when we're assessing people and their responses to their problem. Average does not equal normal. I heard from several of you quoted the French medical vitalist who said, 'There's a difference between normative and normal.'

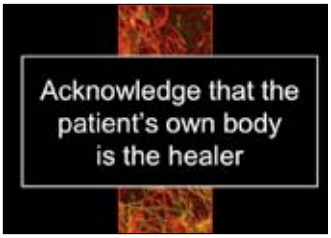


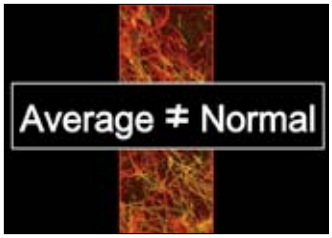
And he was using the term normal when he said that to mean average. That a living thing, if it's truly a vital organism, actually sets its own norms. It's a consequence of making the assumption that there's a wisdom to the whole body that's actually determining what's happening in it and solving its problems itself. Normal doesn't mean average. If my body needs to cook along at one hundred and three and I don't like it, as long as I know I'm working at best I can is it possible that one hundred and three is exactly the temperature I need to be working at at that time? Yeah, so quit trying to tell me I have to bring my temperature down. Tell me how I can best accomplish the temperature I need to function at to do whatever healing my body has the wisdom to do. One of a thousand examples of where we confuse normal for averages when we start to set sociological rather than vitalistic standards of function. Because Vitalism says the standards comes from within. You have the wisdom to set the parameters of your own living. That's what it says, you can't escape it.

Adaptation does not equal malfunction. You know when I eat that bad shrimp I *want* to throw up. I want my body to be clever enough to throw up. But that means I have to respect that my body is clever enough to know in adapting when it needs to do things even if I don't like them. We often confuse adaptations, especially adaptations in challenging situations to body malfunctions. Oh, that's bad functioning and times a thousand examples. Actually to have a vitalistic healthcare system we'd actually have to systematically take that primary assumption and apply it to everything we think about how the body functions. We'd have to review our scientific knowledge, not to find out what's right and what's wrong, but to revalue it. To reevaluate our scientific understanding of how the body works in light of the belief that it has the wisdom to know how it should be working unless something gets in the way. Understanding also does not equal control. That's probably one of the biggest crimes we commit. When we figure out how to do something, we decide that means we can do it and should do it. Doesn't mean there aren't situations in which you can't take control of someone else's life to help them but we kind of work from that little monkey brain place that says, "If I can figure out how to do it I *want* to try it on someone."

Don't we? Do we? Yes. No, I think we do. I think it's dangerous. Vitalistically it's an offense. It is. I'm going to take it real personally if you really think you can take over what my body wants to do just because you can—no, you better give better reasons for that. Kind of makes the patient responsible for their own health. There's the eight hundred pound gorilla that several of us have also referenced. Isn't it? Yeah. Yeah. Patients can't withdraw from the doctor patient relationship. "Here, do with me what you will, Doc." Not if you're thinking vitalistically. I as a vitalistic healthcare provider won't let a patient do that because that's a lie. I can't take, nor do I have the capacity or power to control their body to heal it. So quit trying to tell me that's my job. And quit trying to make it your job. Doesn't mean you don't have a role to play. By the way, I don't think this is going to reduce healthcare. As a matter of fact I think this would actually expand healthcare and prioritize healthcare towards helping people create health. Great word *salugenesis*?? That was Latin and Greek but I still liked it.

A couple of basic principles of any vitalistic interaction. Principle number one. What is a Vitalism? Vitalism is acknowledgement that the patient's own body is the healer. I think of that every time someone proposes to do something for me. I propose to do something for someone else. I think of that as a teacher. I'm a vitalistic teacher, so you know what I think? I think teachers are their own learners. I might be able to help, and I appreciate the opportunity. But I don't fool somebody for a second that I'm stuffing anything in anyone's brain. If I'm lucky, they'll let it come in and do with it what they will. That's a vitalistic perspective on teaching, because my first acknowledgement is that the person is their own





learner. Not just about healing, although we're talking to health care providers so I'll keep it there for a little while. Encourage the patient to let his or her own body to heal itself. Do you think we have to give patients lack of confidence and their enact intelligence out of the way? Do you think the best thing to try to do is give a patient the gift of the knowledge that there own body has this super wisdom that Lewis Thomas talks about? One of the most powerful thing you could give to a patient is a recognition of their own body's fundamental wisdom. Why are we so afraid to do that? Because we won't be able to charge them two trillion dollars to wound them? I don't know why. Because people don't want to hear that? But when they are hurting, people often don't want to do that. Right? It's the parental thing. You know we learn it as children. As children sometimes the environment goes beyond our ability to deal with and so we say, "Help me daddy. Help me mommy." But that's not really the way mature organisms live. First of all, mature organisms say, "It's my job to do it. I have to heal myself." I am going to stand out in front of that car. Can't idiot-proof the world. Help to remove any interference.

This is the second great shift. We stop thinking of what we can do for or to the person and we start thinking of what can we get out of the way. Now I'm really fond of this one, you know why? It's chiropractic. It's a profession that concerns itself with removing an interference to this fundamental thing. It's that simple. Chiropractors try to take on other therapeutic things, and I'm sure there are a lot of chiropractors, and I don't mean to step on anyone's toes, who do this, that and the other thing. But the fundamental chiropractic act that DD Palmer discovered in 1895. It has been elaborated by chiropractors for one hundred and thirteen years since then and going on one hundred and fourteen. Is that what we think we're doing? We could be wrong because it's just our little brain mind. Is adjusting people so there's less interference to the function of the nerve system. What's the function of the nerve system? Oh, I just lapsed into chiropractic, didn't I? Yes, right? To let the body's innate intelligence express itself completely and thoroughly. Someone said they have to have a young nerve system. I love that one. I want my nerve system to be young until the day I die because it's right there at the center of my body's enact intelligence. But is my nerve system running me? No, that's not a vitalistic way to understand the body because corpses have nerve systems. But is the consciousness of life within me, operating over and through my nerve system running me? Yes, exactly. That's what I think is going on. So chiropractic's all about removing that special interference. What's your healthcare system all about removing what interference? Maybe not. Maybe yours is, I gotta add this. I've gotta take away that. Remove an interference. Basic principle of a vitalistic perspective is that when we remove an interference the body heals itself.

Provide resources and support for the patient's body to heal itself? Yes? No? Yes. That's something we do. Quite often. A farmer could be a healthcare provider if he just gives you some good food. Right? Because with good food, what can the body do? Build itself. You know. Even Wonder Bread claims it builds strong bodies twelve ways. They're trying to be healthcare providers. You could question whether Wonder Bread is good food or not, but if Wonder Bread does build healthy bodies twelve ways it's not really the Wonder Bread it's the body's own wisdom. Let's get real vitalistic. Resist the temptation to take control of and patronize the patient. Slide 53 Evaluate all aspects of any therapeutic approach for its outside assumptions and reverse them. Doesn't mean we have to do that. I mean conceptually just think about it. If I'm saying I have to take the body and do this to it, what would happen if I just reverse that assumption? What would happen if I let the body do what it seems to be wanting to do? Think about therapies that way. And you know this is the slogan of Vitalism if you think about it. And look it here's Rob trying to tell me, "Hey it's time to quit, Koch." And that's my last slide. It's been a pleasure ladies and gentlemen.

Rob Scott, DC PhD

Thank you, Dr. Koch. Before we depart, just a couple of comments. I'm going to save a lot of my questions for tomorrow's sessions, because I think they're pertinent to them.

We started off this morning asking whether a vitalistic perspective could drive health system change, and if so, what would that system look like? What would be the taxonomy of that system, the clinical outcomes of the new health care paradigm? What would be the desired outcomes, the desired effects of patient care? And I think we started to see today how the vitalistic perspective might address that. However, I'm going to suggest that we have a long list of questions that still need to be answered.

What became clear to me in the metatherapeutics perspective was something that Dr. Kaeufer spoke of this morning, with the patient-doctor interactions, and the levels [of listening], and the examples that were used. The transitional relationship that we experience in a health care environment, and how you get the opportunity to express that in a vitalistic way. As David acknowledged, there isn't a surgeon around who won't admit that the sutures are just holding the vessels together while the body does the healing.

Ian Coulter, PhD Welcome and Opening Remarks April 18th

So that s the challenge. And what our group will try and do today is to give you an outside perspective. We don t wish to be critical of you, but the challenge for a panel like ours is to tell you what you need to hear, not what you want to hear. Hopefully you ll forgive us, at the end of the day when we come back and make our comments, that some of them seem a bit critical. There s no point in inviting us here to just tell you what you want to hear.

Good morning. A number of us among the conference faculty have been discussing just how we're going to help you or make a contribution this weekend, and we actually have sort of a challenge. So let me just try to share with you one of the things we hope to try and do.

Yesterday you actually heard a presentation from a group of people who are from disciplines other than yours, with the exception of David, who gave you an idea of how they approach this idea of vitalism from their disciplines, from their professions. And the purpose of that was to get you thinking other ways of thinking about vitalism and how other groups have done it. As I pointed out yesterday that the one thing that unites the CAM groups is that every one of you is a vitalist. I don't know one that isn't. You all express it in different ways, so hopefully one of the things you'll hear today is that there are different ways you can express that metaphysical belief system. You don't have to be tied into the way you've done it. So I guess the thing I'd like to encourage you to do today is to do this thing here. I love this quote, and we use it at Rand.

"The first step to thinking outside the box is to get out of the box." And so hopefully what will happen at the end of the day is that we'll have challenged you to step outside your box, especially the chiropractic one. And to do that it seems that you have to do some reformation. So I'd like to give you a couple of quotes about reformation.

"The two enemies of reform are the knaves who oppose it and the fools who favor it." Someone used the metaphor yesterday, I believe it might have been Monica, about trying to change the [direction of a] ship, about trying to change a ship that's under full sail. That's always difficult to do. Perhaps a better one might be that the train's moving down the track while you're still trying to lay the track.

Maybe the metaphor you need to use is that you're evolving, and you've got a feedback loop, and in your evolution you need to [tap into] feed back through the loop [as you grow]. And the second quote is "The world will never be as bad as reformers think it is, nor as good as they think it ought to be." But the one I really like is the last one: "If a man has a pain in his bowels, he forthwith sets about reforming the world," by Thoreau. And given what we've heard about Ayurvedic medicine, that sounds like an appropriate quote. I think that will be the tag line for everything today!

But I thought I'd just share with you briefly some research, one of the first pieces of research I did on chiropractic, actually. I was looking at, when there

was a massive study done in Canada you probably know about, when we looked at observable practices and went in and interviewed all the patients. And one of the things I was intrigued about was when we went to chiropractic colleges. We went to the chiropractic college there for the year as participants. We enrolled, we took classes, we lived with the students for a whole year. And again: this was a college, a college that was going through much the same sort of crisis all chiropractic colleges were going through at the time, thinking about 'what are the principles we're going to teach; what is the philosophy we're going to use,' etc. And of course the great challenge at the time for CMCC was that as the colleges were becoming much more scientifically based, students coming in had to [have better grades], the faculty had much more expertise outside their disciplines [of chiropractic], and were much more involved in research.

And so there was a tremendous clash between the old, traditional paradigm, which had been the basic, Palmer kind of model in a way, and this new, emerging scientific paradigm. And the conflict actually resulted in a strike at that college when we were there

> "The two enemies of reform are the knaves who oppose it and the fools who favor it.

in the middle of our study; one day, all the students walked out. And although the fight was about a number of things, what happened was there was an incredible clash between these two paradigms. Where, on one hand these different students coming in had a different kind of mindset, and the traditional kinds of paradigm were not appealing to them at all. They had been trained in science, they came in a scientific discipline, and they wanted a metaphysical model that harmonized with what they already felt about science. So we saw this kind of conflict very early, and it happened at CMCC in the early 1970s. And so if you look at what's happened in chiropractic in the last twenty or thirty years, that's really what has happened. As the educational requirements have gone up, you now have students that are coming in with quite strong backgrounds in science, and now even in philosophy. Some of the older ideas in chiropractic are being quite seriously challenged. And you have to figure out what is the most morally appealing kinds of ideas for students.

So I thought I'd share with you one of the pieces of research we did there, because when you talk to chiropractors, generally, they talk a lot about the philosophy of chiropractic. So they'll talk to you about what means to have the metaphysical links, and so on. And so we were sort of interested in asking how many of the patients actually get this stuff. And I have to show you what is sort of a rather depressing slide.

This is 700 randomly chosen patients, and 350 randomly chosen chiropractors. And we asked them, on the left is the element that the chiropractor used to explain illness, and on the right is how the patient reported that. As you can see, 44% of [chiropractors] reported they used things like ontology and philosophy and innate intelligence. And 71% said they used that to explain chiropractic to the patient. But only 9% of the patients had any clue about that—only 9%.

And if you look at the second element, theories about chiropractic, 64% [of chiropractors] said they used that to explain illness, and 72% used theories to explain chiropractic, but only 12% of patients [retained] that information.

So if in fact it's important to explain chiropractic theories and philosophy to your patients, then I can tell you you're not doing a very good job. Most patients don't have a clue about what it is.

And so here's the challenge as it seems to us, and one of the things we'd like to get you to think about

today: if, in fact, this vitalism is important to chiropractic, and if we think it does make a difference to your practice, then clearly it has to be communicated to your patients—at the very least, it has to be communicated to the patients.

And if you like that sort of perspective, and you think it should be part of the health care reform [debate], then it also has to be communicated to policy-makers. And if it's important to you to be part of academic life, be part of universities and so forth, it does have to be communicated to academics, particularly the scientists. I mean, if you really want to develop your research paradigm—and you are (we

> you have to be able to communicate to other scientists.

all should know that chiropractic's research is more developed than at any time in its history; many are doing some great research; there are some brilliant researchers coming up, there are all sorts of research chairs that now exist, so that's a whole new world for chiropractic)—you have to be able to communicate to other scientists.

So I think that one of the challenges, and one of the reasons why I had the cartoon about thinking outside of the box, is that if you wish to be a vitalist, if you wish to retain that, then you have to think about how do we actually communicate that to the patient. If you continue to do it the way you've been doing it, then I have to say that based on my research, you're doing a lousy job. Because very few people outside of chiropractic actually understand what you're talking about. And in my experiences with patients (I must have interviewed over 5,000 patients I my career) I have to tell you that very, very few of them have any idea of your vitalistic perspective.

So that's the challenge. And what our group will try and do today is to give you an outside perspective. We don't wish to be critical of you, but the challenge for a panel like ours is to tell you what you need to hear, not what you want to hear. Hopefully you'll forgive us, at the end of the day when we come back and make our comments, that some of them seem a bit critical. There's no point in inviting us here to just tell you what you want to hear.

I must say I was delighted to see how many of you stayed the entire day yesterday. I'm also delighted to see how many of you are back here this early! We're enjoying it, and I hope you are. Thank you.

Katrin Kaeufer, PhD Maintaining Intention and the Process of Personal Transformation

Every view has a reason, and you might not agree with it; you might oppose it. But you have to develop the ability to see it from there, and to use that perspective. So that s one of the most important tools.

Communication in organizations! That really resonates with me. But how do you communicate in organizations? How do you communicate with your patients? How do you communicate with policymakers? How do you communicate with academics?

Yesterday I talked a bit about listening, and the different qualities of listening. For me, listening is one of the most important tools to make communication happen.

So the character of today is a little different than yesterday. Today it's more about reflecting what we heard yesterday, and I would like to invite you to join this. I briefly summarized my reflections from yesterday. As you've probably noticed, my work is a little bit different: I'm not in the medical field; I'm not attending to the needs of the physical body. But I think we can compare our work in a different respect: attending to the social body. One of the things I learned yesterday is that there's a lot of interactivity around the social body, which is, how are we together? What is the quality of our social interactions? And the needs of the physical body.

We see the needs of the 'social body' and speak of it as a 'social field.' And we need this concept of fields, the idea of a social body, or social field, so we can describe how we can be together. And if we are not aware that there are shifts in how we are together, we cannot mitigate that, we cannot improve the quality. So my personal conclusion from yesterday is that there is also a social body, and an interaction, an interdependency between our physical body—the capacity of our body to heal—and the quality of our social being together. From our perspective what's needed to improve the quality of the social body is what we call social technology.

So what are social technologies? Listening, for example, is a social technology. Or, in my field for example there are a lot of explicit social technologies, like the U Process, or Appreciative Group Inquiry, or Large Group Change Processes, or Open Thought Processes: there are a lot of processes you can use to help change the quality of the social body.

But there's one tricky piece about the work that I'm doing, and that resonates, I think, with the work you are doing. When you are doing an experiment, for example, you are a scientist heating water. You are going to measure when it is going to boil. But you are outside of the pot; in my work, I'm right 'inside the pot.' So scientists can set up experiments, but he or she is part of the experiments. So there is still the need for reflecting, for involvement, for the person doing this in a scientific setup.

But what I'm doing is even worse: I'm sitting right in the pot. My work is to be with groups, and to try and figure out just what is happening. Which also adds an additional level of complexity. So why bother? Why do this work? On a personal note, I grew up in a family of engineers; I have two brothers who are engineers, a father who is an engineer, and a grandfather who is an engineer. And all our life at home was about technologies and how to make things better. But they needed

> "…I wasn't taken seriously because I couldn't fix the car…"

me to communicate with each other; they couldn't talk to each other! I always felt a little strange in this setup; I wasn't taken seriously because I couldn't fix the car, but my brothers couldn't communicate about who was going to fix which part of the car! So I believe there is a need to first articulate social technologies and bring a language to this, and secondly to learn how to use this. And the use of social technologies has another tricky element to it, which I often compare to the work of a carpenter.

So if you're a carpenter, and you want to make a desk, you have to learn how to use the tools, like we have to learn how to use social technologies. But this doesn't make a good carpenter necessarily; you have to work with the wood, you have to work with the temperature, you have to work with your own energy, your own creativity.

So there are always two pieces to the gamble. One, you have to have the technologies. But the second is that you have to be the creator in the moment when you are using the technologies.

So that's my reflection on our meeting yesterday, on our talks. So I would like to invite you to reflect on all this, to turn to your neighbor and share what you learned. Share what you might have been surprised by, or unprepared for. I know, I hate these exercises too, but this is an important exercise, and a boundary to cross. So turn to your neighbor and discuss what surprised you—what's relevant for your work?

Okay. Yes?

Comments on the placebo effect, and the dangers of vitalism being categorized like placebo, and therefore easy to dismiss, especially where it's not understood.

So yesterday I introduced, in order to illustrate the possible qualities of the social body, I introduced an example of the physician-patient relationship, and introduced one tool, which is listening. And listening obviously has another side, which is communicating. I just want to briefly describe this 'other side' of listening. Communication can have these qualities as well. I'm pretty sure you know about these.

The first quality is downloading. What this means is that I'm standing in my boundary, not leaving my boundary—stuck in my box. An example is coming in to a room. "How are you?" "I'm fine." This is just a phrase; everybody knows it has nothing to do with how you really feel. Unfortunately this is how we run most of our meetings. We are downloading old patterns that exist in our communications, old patterns that exist: in this organization, in this team, in the family. It works well on certain levels; with politeness it keeps us from getting into fights; it works well with our bosses, usually. So it's an important element: it's a safety container.

In the second quality of the social body, I as an individual move to the boundary of my perception. I move to 'the window.' "How are you?" "I'm terrible." We move to a different section which we call debate. A conflict comes up; someone speaks his or her mind, and then we all get scared. But the important piece is that as you step from one to two, people




become more authentic; people arrive. "I don't think this is the right way to go right now." "This meeting is not leading to anything." "No one is talking about the elephant in the room."

It's scary, and the problem arises: how can we keep the container in this moment? And what usually happens in organizations is that people move back and forth between one and two. "How are you?" "I'm fine." "The house was on fire, but we are all fine." So it's going back and forth. The challenge then is how do you move from two to three.

In the third level, you start moving into the other person's perspective. "Okay, I see from your perspective why you see the house is on fire. I can see why you are thinking that." So you stop speaking, you stop the downloading just from your perspective and move into theirs. We call this reflective inquiry. So when you are in a meeting, moving back and forth between one and two, how do you move into three? Any experiences?

Inaudible discussion. Dr. Kaeufer was asked what she thought a good answer was.

Ask the question. Ask the questions that are on your mind. Don't ask the rhetorical questions. Like, "Do you think we all should do X?" That's not the question. The real question might be, "Do you think we all should be doing this? I'm scared." "If this is how things are looking, we might not be here a year from now." So look for the real question. If you move into the other person's perspective, ask yourself, 'what is my question, now?'

> "Okay, I see from your perspective…"

And don't make anything up; don't try to change the other person, it's not about changing the other person. It's more about moving into the other person's perspective and asking yourself, 'how does the world look like from here?' 'What's the question I have?' Ask an authentic question. That's the tool you need to develop.

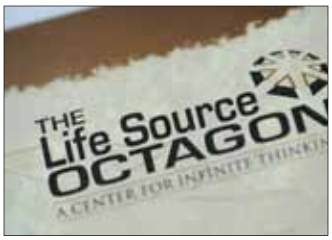
Inaudible question about assuming validity in others' views.

Every view has a reason, and you might not agree with it; you might oppose it. But you have to develop the ability to see it from there, and to use that perspective. So that's one of the most important tools.

And the last tool, the last step in Presencing is one you probably all have experienced as well, in your work, or in your childhood, which is that you stop experiencing the boundaries between people in the room, and you begin to work as a team. Something comes up and you say, "Oh, I had exactly the same idea just a second ago!" So something happens, you are working together. It's called dialog, and David Bohm, one of the leaders in this area calls dialog 'the art of thinking together.' You start thinking together, and it's no longer about the policies or issues in the room, it's about what you're going to solve together. And this has another quality than the other three levels of social interaction.

This quality of social interaction you don't need when you are deciding on a copy machine for the office. You need it for certain issues, for your capacity to heal the social body.

We distinguish between three levels of complexity. The standard definition of complexity asserts that there is a difference in space and time between cause and effect. So let's look, for example, at global warming. So we are behaving in a certain way, and this causes at some point global warming, a distance between cause and effect. How do you approach this




problem? Usually what helps is a system analysis. You look at the whole system, you try to identify cause and effect and you try to connect them. Basically you have to bridge the distance between space and time.

The second type of complexity we call social complexity. So maybe everybody agrees on global warming, and explain the distance between space and time.

> You have to bridge states, you have to bridge dialog.

But nobody agrees on who's responsible, and who's going to take action. So this requires a different type of complexity, and a different type of work. We call this multi-stakeholder work. So you have to bring the stakeholders into a room and work with them; there are a lot of tools available, but this is an art. You have to bridge states, you have to bridge dialog.

And then the last form of complexity we call emerging complexity. This is something we have seen this past year with the financial crisis. None of the financial planners saw the crisis coming. Why is this? They all had the same data. For something like this, the question becomes, can you tune in to this event, this time? You have to sense something is happening. For this level of complexity a dialog is needed, a generative dialog is needed. Normal dialog doesn't do the trick.

And my last point; I described that we are working with groups and describing change. Our assumption is that you cannot understand a system until you change it. So you have to move into a system in order to understand the change process. We conducted interviews with innovators and thinkers in our field, managers and leaders. The questions we were asking were, 'how can we connect to a disruptive change situation? How can we connect to an emerging future?' The process that I would like to briefly present to you is the result of this research. We call it The Presencing, or the U Process. My colleagues wrote a book about it, and if you want more detail, 500 pages might be enough!

I'll summarize this in two minutes! Just with a few brief steps, then. One is illustrated by an interview with a leading economist in California. We were talking about innovation in Silicon Valley. This is how he described that innovation happens, how innovators and creators connect to a new idea. He said that they go through three movements.

The first is 'observe, observe, observe.' So connect to the reality: connect to the reality, the connection to downloading. The second step he called 'retreat and reflect.' So stop observing, and go take a shower. Or with a group, stop observing, and go into silence. Or take a walk. Put a stop to the process of observation. Reflect and retreat. And you need all kinds of social technologies when you work with these groups to design this process.

The third movement is 'act in an instant.' Don't think about what you are going to do; just do it. Move quickly. Move quickly to fail early, because moving and failing are part of the learning process. So observe, observe; retreat and reflect; then move quickly. Obviously this is a 5,000 foot perspective on this. And I just give you some brief additional details. These different images (on the screen) illustrate this process.

In moving down the process with a group, you have to move through these phases. You have to first open up your mind, open up your intellectual capacity. The second step we call open up your heart. Redirect your attention to the other person's perspective, move into the other situation. Observe from another perspective. And then, let everything sit; just let go. Move into a phase of connecting to your real question. 'What is the question I have that connects this to my work?' And then the next phase is one of prototyping. Move quickly into what came up for you in the reflection,

and see what's happening. Does it work? No; then do it again. But don't wait; act quickly.

So; that's the summary. And this is just a rough introduction in these thirty minutes. I want to emphasize that this is basically a map or a landscape. The most important point is that you bring your authentic self to the process. You have to design the process for the group; there is no mechanism in all of this work. Probably there is no mechanism in the healing work at all. So you have to know all these tools, you have to know all these maps, but when you move into a concrete process, you have to be the innovator, you have to make things real for all the people in the room.

> You have to design the process for the group; there is no mechanism in all of this work."

Thank you so much for your attention!

Yvonne Villanueva-Russell, PhD

The Nature of Enquiry – Issues Challenges with Logical Positivism and Empirical Approaches

Alternative medicine is more than a bodily outcome. It s more than symptom chasing and the reduction of symptoms. It s about so much more: the beauty, the sacredness, the relationships, the things we can not see. There s also an ongoing interdependency with social, physical, and spiritual. You cannot understand a therapy without also understanding the culture in which it s embedded.

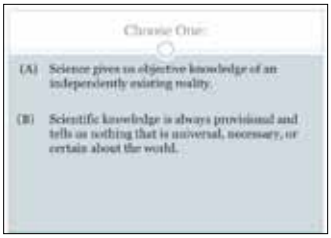
Good morning, I apologize for this segment of the room that is not going to be able to see my head. That does not go over the computer screen. This is what I look like. Imagine…. imagine it as I go through. So a little bit of levity as I nervously try to bring up my power point. (Bet it's not there) But it is there, it's magic!

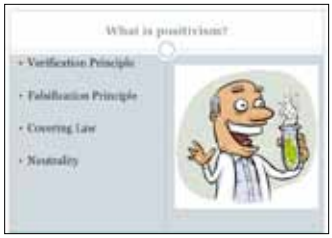
Thank you Dr. Bolles, Dr. Scott, Dr. Riekeman for anyone who is responsible for bringing me here to Life. Some of you have heard me speak before. Others of you have no idea who I am and that is fine. I wanted to do something a little bit different today. One of the purposes of today, and yesterday, and this afternoon is for us to engage in a conversation. And a conversation means that multiple view points have to be represented in order for there to be some kind of dialogue.

And so, all of the speakers come from various disciplines, from various positions in the world and we all have different takes on things. And I think what's interesting is that you're not all going to have everybody preaching to the choir. We're not all going to be saying the same things. And we're not all going to agree which is interesting. You may not agree with some of the things I say today, and I may not agree with some of the things you say.

Let me put out there an idea that I try to do when I'm a professor—but I usually have sixteen weeks to do it with my students. In a sociology course, my discipline, one of the mottos of sociology is that 'things are not as they first appear.' That doesn't mean that we can walk through walls. But it sort of, sometimes you just can't take the surface level, you've got to look underneath. And sometimes you've got to look in places that you haven't been taught to look. Sociologist like to look at the unseen social forces that are out there in the world and how they impact how we're perceiving things, how they limit what we think we could do.

What I try to tell my students to do, is to admit the possibility that the world may be different than what you think of it right now. The world may be different than what you think of it right now. And if I could get my students to budge just a little bit from where they are, from their box and kind of step outside the box, then I think I've done my job. But I usually get sixteen weeks to do it; I get an hour to do it with you. And so what I want to try and show you is maybe a new way to look at the old issues, and a new perspective. And so part of what I say is that I'm going to kind of create a false dichotomy. I don't totally buy, hook line and sinker everything I'm going to tell you today. I'm going to try and be provocative and I'm going to try and create some ideal types





that are not found in reality. But when we do this, when I kind of push these things to the extreme and I elaborate and create these fantasies that Dr. Greco was talking about yesterday. Sometimes it makes it easier for us to understand the differences and then talk about how we can come together or how we could work or talk about the implications of what these things happen.

So I want to start out with the idea 'Camping.' Do any of you camp? Okay, what does that mean to you? What's your version of camping? Okay, very good! Someone very honestly said, "Room service." And for some of you, camping is a portable Holiday Inn on wheels, is it not? Because the only thing you want to do in nature is look out of it from your air conditioned RV that is bigger than the first efficiency apartment I ever lived in. And so if this is your version of camping—if this is what's real to you, what's important to you? What does your world consist of? This version of camping. Okay, 'Concrete.' Okay, 'Comfort.' In some ways it's a sense of control, isn't it?

Because you've got everything that you would normally have at home. You've got your dish, your satellite, you've got your king size bed, you've got your full size tub, right? You have a shower, probably a jacuzzi, have they done that yet? I mean, what do you not have? So comfort in the sense of using it for control. This is a very predictable encounter, isn't it? There's no bear that's going to suddenly take your sleeping bag and drag it to the mountains, right? There's no Deliverance movement here. This is a very predictable camping encounter. It's predictable. There's comfort. It's order in progress. It's the best of the new world on four wheels, or eight wheels or how ever many wheels it takes for you to buy an RV of this size, right? There's precision and planning. You've probably planned this out. And in fact, a person like this to get this spot probably reserved the camping spot a year in advance. My in-laws are big RV'ers. And it's very interesting.

I want to suggest that this is one possibility of camping. For others of you, is there a different version? A different reality of camping? Snow camping: just the opposite of camping in an RV. Those of you whose idea of camping is room service, would you ever *ever* want to do this version of camping? Okay, would anyone sign up for this one? Those who would want to camp out in the wilderness, would you ever want to spend a night in a RV and call it camping? Generally what we find is that you get this divisiveness. Something like camping, a neutral world like camping divides. And these people loosely form these paradigms, and then you don't see the world both ways. You don't get it both ways. You're either an RV'er, with your portable Holiday Inn on wheels or you're a camper who's out in the wilderness.

If you're the picture on the right, what's real for you? What is camping about? Why on earth would you lay your body on snow? Okay, because it's 'unpredictable.' 'New experiences.' (Audience response: "Getting in touch with nature.") 'Getting in touch with nature, right.' The 'simplicity of it all.' In fact, very different. What's real for the person on the right, is very different than what's real for the person on the left. But they're both called camping. And they're not going to agree. Both see the other side with distain, don't they? "That's not camping, that's RV'ing; don't use my word." You get this very territorial sense of what's real and what's right. Okay, and so I would argue that the sense of camping on the right is unpredictable. It's spontaneous. It's a chance for you to interact with Mother Nature. And in fact, Mother Nature has control, you don't. And that's part of the game. You go into it knowing you may go to sleep on the hill and wake up somehow rolls down into a stream. And that's part of the fun. You sign up for that. 'Roughing it' is a pretty accurate description. Many people do it to be 'one' with nature. It's an experience. It's a phenomenon. This is a phenomenalogical type of environment. Very different.

And so this division between camping is somewhat similar to what Dr. Pizzorno referred to in his lecture yesterday when he got into a conversation with a fellow and realized that the conversation was not going to go anywhere. When he had a conversation with a man who said, "The body is broken, or the body has the tendency to break down and I have to fix those mistakes." If you believe that the body has a tendency to disease and break down and malfunction, versus 'I believe the body has a tendency towards health, to maintain, and self preserve.' Those are equal, equally divisive, equal paradigmatic, equally dichotomist views of the body. Just as camping lends itself to two different realities, I would argue that Mechanism and Vitalism are also two very different views. And probably Dr. Greco might disagree with me. She might want to say that there's room for interplay between those. And that might be something very interesting to talk about later. We generally have a preference for one over the other. And then we embrace it. And it *becomes* us. And we can't let go of it. It seems natural and it seems right to us. And that's sort of what I'm talking about. This hour I'm talking about science. Which is interesting because I'm not a scientist. I'm…well I'm a social scientist, but I'm a very different type of scientist than what goes on in the Chiropractic profession.

> And then we *embrace* it. And it becomes us. And we can t let go of it.

So let me give you two options. If this was a quiz and there were no right or wrong answer, which one comes closer to your world view? *Science gives us objective knowledge of an independently existing reality*. Which basically means there's a real world out there. It exists whether we notice it, whether we perceive it, whether we label it. There is a real world out there that exist beyond our flawed observations of it. If a tree falls in the woods and no one's there to hear it, does it make a sound? Absolutely, according to this world view because of the laws of physics and gravity and all those universal truths out there. But here's another way to contemplate the world and anthological views: *Is scientific knowledge instead provisional?* Does it tell us nothing about the world that is universal, necessary or certain?

The first one is sort of Newtonian; it's a very realist position. There is a world that's hard and fast. It's very predictable. The world operates in law-like certainty. The second one is more Constructionist. Is there a world? Who says there's a world? We don't have truth with a capital "T" we just have truths with little "t's." Lot's of them. And who's to say that one view is any better or more correct or more accurate than any other. Because according to view B, the world is relative and truth is relative and always conditioned on some culture, some historical ethic, some world view, some community that has defined for itself what is true and what is valuable. So do you see yourself gravitating to either A or B? Any view As? Any view Bs? Some of you want to carve a "C" maybe you don't like these options, you want to go further? You're just like my students, right? I don't see the answer here; can you narrow it down for me? No, *I* can't; *you* have to.

I will force you into one. And again, this is sort of a false dichotomy; I'm forcing you into one or the other. Not realistically; sure, there's B, C, there's Z, there's 8.83. I mean, there's all sorts of options out here but I want to force you into this as an ideal type just to get you to see the differences and the limitations of creating and existing in a very extreme position. So I have been given the task to talk about Positivism which is a sure fire way to put anybody to sleep. And in fact, you probably have never heard of Positivism, but you're probably very, very familiar with it. Positivism is basically conventional science. We just use a fancy word for it. If you want to go back and look at the origins of Positivism, it actually goes far beyond August Comte I've put up there. I'm a sociologist so he's generally our straw man that we attribute the birth of Positivism with although it was around long before August Comte.

August Comte who wrote in the late 1800s basically wrote a very famous book called the *Positive Philosophy* and what he was arguing for was that our knowledge systems needed to evolve past the Theological stage, and past the Metaphysical stage, in to the Positivistic stage. Which was a more scientific, a more predictive, a more progressive way of thinking. And in his lifetime, he said the problem is that people haven't all joined the band wagon, yet. And it's interesting because Ian Coulter was sort of talking about the same thing. People haven't joined the scientific band wagon, yet but that was in 1970 and August Comte basically said the same thing in 1870. So this question of science is something that we still struggle with. Now August Comte set up the framework and it was then continued by the Viennese Circle, a group of very well known philosophers that would regularly meet in the late 1920s and 1930s.

And these included names like Schlicke, and Hempel and Carmack if any of you want to do some extra reading. I wouldn't encourage it, but it's a possibility. So what is Positivism? And it's interesting, I went and talked at the RAC conference and that was probably the conference that Dr. Scott was talking about. And got up there and right before I was going to give my talk which was about a critique of Positivism, one of the co-presenters was like "What is this Positivism thing?" And I was like 'Oh my gosh! We're not all on the same page.' So, I just want to take a couple of minutes and run through this and what you'll find you already know this stuff. You just didn't know it was called this.

So Positivism and Logical Positivism as it was constructed. And I've used Hyndman's *et al*'s model basically constructs and reconfigures Positivism in a readable form. Positivism relies on the verification principle. Basically, this is the idea that the meaning of a scientific concept can in principle always be reduced to an empirical observation. The only meaningful statements are those that can be tested through observation. So this is the idea that if we cannot measure it, if we cannot bottle it, if we can't put it under a microscope, if it does not exist outside of the black box of feelings, and attitudes, and faith in our head—then we shouldn't study it. Those metaphysical things. Those things we can not measure are not worthy of study. And so this is sort of what Dr. Koch referred to as this Placebo affect. It's a very scary thing for scientists, because if you can't control it and predict it and know it, in an empirical sense of the world through direct systematic observation then it doesn't fit into the model. And it is implied in Positivism that it is therefore not worth studying.

Unless you can force it into the model it's not going to be seen, it's not going to be seen as legitimate. And that's the Verification Principle. The second principle is the Falsification principle and this was what Dr. Coulter was talking about yesterday when he talked about Karl Popper. And Popper was very famous for his idea that scientists don't *prove* anything, that they're in the *disproving* business. The best a scientist can do is to disconfirm a hypothesis that has been out there. Again, the idea is to replicate enough so that we have generalized ability in the form of a universal law, but it takes only one single disconfirming instance to falsify a universal statement. Scientist therefore work to refute and disprove theories rather than to confirm, to verify or to prove them. Interesting, the game is a little bit different than you might have thought.

There is a very famous Covering Law. And again you're very familiar with the Covering Law. The Covering Law is basically the practice of deduction. Positivism details a rigorous precise methodology that involves the hypothetical deductive model. Basically, you have variables and hypothesis that are deduced and reduced from larger phenomenon in the world. Upon testing these cases they're inductively than built upon and generalized to eventually you can write a

universal law. And so this is the challenge and this is the problem and everybody who's a scientist deals with this Covering law.

Someone yesterday mentioned, I think it was Dr. Fisher talked about the concept of Society. Sociologists study society but you can't see society, you can't box it, you can't control it and sell it like a perfume but society exist in the abstract. The goal is to operationalize it to something that is real and measurable. And so the Covering Law presents a big challenge for alternative medicine in that this thing that you're talking about "Vitalism" is an abstract concept. Just as 'society' is. Just as 'love' is. Just as some 'attitude' is. How do you transform that in to something that is measurable? How do you transform that into something that is measurable? Preferably, a quantitative numerical variable. That's the test.

> The last feature of Positivism is neutrality.

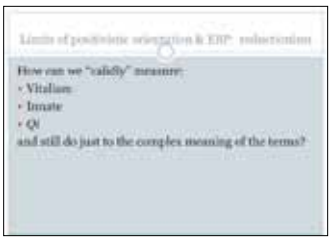
The last feature of Positivism is neutrality. It's the idea that Positivism provides knowledge which is purely instrumental in form. The findings do not give implications for practical policy or for the pursuit of values. Science as it is being done and conducted and analyzed must be neutral. You can't go in to it knowing what you're going to find. That is Positivism.

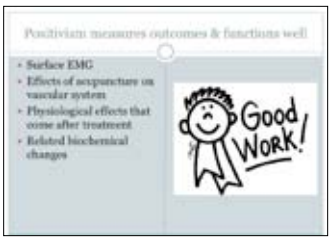
Is Positivism dead? Well, I just told you what it is and now I'm going to tell you its dead? What a waste of your time. Well, it's interesting we talked about Vitalism and how some had falsely proclaimed Vitalism to be dead. And we find that it's finally getting its resurgence. At least we're talking about it and we have for 48 hours. Positivism has also been falsely pronounced as dead. According to Tibbets, Positivism isn't dead: it's just been used and abused. It has just now become sort of a dirty word. If you call somebody a 'Positivist' you've just insulted them. So, use that the next time you want to dig into somebody. "Oh yeah? You *Positivist*!" And then walk away and see how that works. In the social sciences, the most pejorative and the most unclear term to diminish someone's research is to dismiss them and use the term "Positivism." And even in physics, Steven Hawkins states that to call somebody a Positivist has a negative connotation. It usually means the negation of status as a scientist. Basically, what happened is that Positivism arose during the Vienna Circle and promptly in the 1950s it was dismantled.

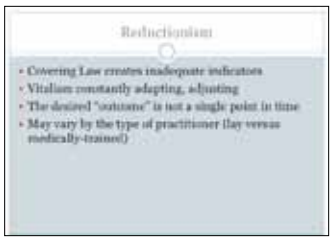
It was critiqued. It was harshly criticized. And the philosophers of science, the feminists, the critical theorists, the post modernists, people like Thomas Kuhn, and Hansen, they've all kind of dismantled Positivism. They said it had too much emphasis on control and manipulation and is therefore fascistic. That is truly an ideology masquerading as science. They assert that it is reductionistic and dehumanizing. So it's been put through the mill which is interesting. So is Positivism dead? Does it not exist today? Well, absolutely not. It is definitely still around. All of you in this audience has heard of, your friend and mine, evidence based medicine better known as Best Practice Guidelines.

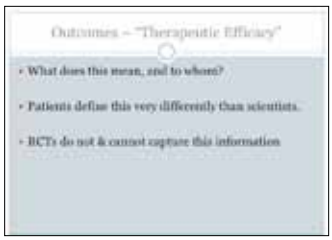
Does this give you warm fuzzies? And it really doesn't anywhere else. I was talking to Dr. Morris about outcomes assessment, which is a necessary evil: we all have to do it, we all have to be able to show that from point A to B there was a change, and hopefully in the direction that we anticipated in a measurable way that is convincing to legislature and accreditation bodies, and policy makers etc.

And so, is Positivism dead? Well, no. Positivism is very much manifested in evidence based medicine and in Best Practice Guidelines. What is evidence based medicine? (Audience response: "It's a joke") No, not really. I wish it were a joke and we can go haha I didn't get it. It's in reality, that's what it is. Well, evidence based medicine or evidence based practice is









a system that analyzes the best available evidence. It privileges systematic and methodically rigorous clinical research. It maligns the use of intuition, unsystematic clinical experience, patient and professional values, and pathophysiologicals rationale. Basically, evidence based medicine is an attempt to create the gold standard. Let's look and see what the evidence tells us and gives the most support for various practices or techniques or modalities or whatever it is that you're doing. And I must say that evidence based medicine is a movement. I mean its part of something much larger than what's going on in Chiropractic or Naturopathic and others. Because everybody's doing evidence based "fill in the blank." Education is doing evidence based higher learning. Beauticians are doing evidence based hair dyeing procedures.

Everybody is catching on to this movement of the evidence must support what we do. But interestingly enough, evidence based medicine rests on a set of ontological assumptions that are very much aligned with biomedicine. It's very much aligned with 'one version of camping,' basically, and not the other. Evidence based medicine rests on the assumption that the world occurs in predictable law-like patterns. And therefore, is amendable to control prediction, prevention and engineering. If you really believe in science in an objective world that obeys the law-like patterns of the world then engaging in evidence based medicine makes great sense because it is compatible with your ontological assumptions of, well, A always causes B therefore my best practice assumptions is that you do A which will then therefore trigger B. If you are on "the other version camping," you're one with the snow and believe that there are multiple ways of knowing, evidence based medicine and its predictive formula or its equation, as we talked about yesterday, doesn't make a lot of sense. Because A doesn't always cause B. It might but it might cause C or it may just be A and who are we to guess. So it becomes problematic.

Positivism is certainly not dead within healthcare. Today, positive science is very much undergirding the evidence based guidelines. According to Goldenberg (a medical anthropologist), evidence based medicine today carries with it the enthusiasm for science that has not been seen since the days of the Vienna Circle in 1920 and the 1930. So Positivism is definitely not dead; it is on the rebirth.

However, as Goldenberg states, evidence based medicine is based on an outmoded version of Positivism. Evidence based practice maintains an antiquated understanding of evidence as facts about the world. It assumes that scientific beliefs stand or fall in the light of the evidence. This understanding of evidence is explicitly Positivist. And such a picture of science has been seriously undermined by Post-Positivist philosophies of science that began as early as the 1950s with Hanson, and Coon, and Firebaunt. So Positivism isn't dead, it's very much alive and breathing and unfortunately it's not a joke.

The CCGPP: do these initials make sense to you? The Commission of the Council on Chiropractic Guidelines and Practice Parameters. That is a mouthful so that's why we just call it the CCGPP. And the CCGPP is a group of very highly influential and highly educated, wonderful Chiropractors from all walks of life: there's vendors, there's private practitioners, there're scientists, there's academics in there. But there's a group of Chiropractors, there are currently creating a new set of best practice guidelines which somebody told me last night are now out for your perusal. Each group has been broken into a committees and each committee has been assigned an anatomical region. You get the ring finger, you get the big toe, you get the neck, you get the lower back, right, and that they were assigned to this task. They were then instructed to evaluate the existing Peer Review literature to accumulate the evidence to support a set of therapies as best practices. Or to *not* support them and say that there

was not sufficient evidence to support these. And the processes of creating best practices follows a very Positivist set of rules. The literature is in some ways graded and I don't mean to say that you give it A+, but there's a very fancy set of algorithms that are used.

The evidence that floats to the top as the most valuable is the randomized controlled trial. That is the top. The bottom are things like case studies, and qualitative, and personal opinions, professional opinions, those fall to the bottom and those get less predence and less value. Unfortunately, what happens is that a sloppy meta-analysis or a imperfect randomized controlled trial that has some methodological problems may potentially count more towards the best practice creation than a large well-designed cohort study and that's the bias of Positivism and the hierarchy of evidence that has been created. And so the CCGPP has set out with this objective. They want to create best practices that reflect patient centered, scientifically based, outcomes based, refined through quality improvement, bench marked and individualized in the context of each patient. Okay, fit that on a business card and memorize it. So they want to do a lot. I mean this is a very ambitious goal.

Well, when you engage in Positivism, and you employ the Falsification principle and the Covering law, there are some limits. And these are limits of Positivism in general. I'm not just picking on the CCGPP but I'm going to use that as a case study in the very end to show you what that means for some of you in the room. Say we just talk about Positivism in general. Let's just step back and not make it so personal. Positivism is a wonderful thing. And we talked a lot yesterday. People tipped their hat to the mechanistic view of the world. And how that has helped us, how that's healed us, how that's provided David with sight, how it's been able to give us an incredible amount of knowledge about how the body works as a machine. But there are limits to this version of science. This mechanistic world view that is then manifested in a methodology that is very narrow. And one of the problems is Reductionism. Is something beautiful, like Bridget Bardot, amendable to Positivist science? There is a new computer program out there, that can, through a very fancy set of algorithms, calculate who is beautiful and who is not. It can make you more beautiful. So it will take a picture of your face and plug your dimensions, the space in between your eyes, the symmetry of your face, into this set of predictive, positivist, mathematical, algorithms of what true beauty is. And if your face doesn't confirm, it'll transform your face to form.

Now, on the left we have a picture of Bridget Bardot, beautiful, absolutely beautiful. She very much was known for her very full lips. Her sensuous eyes. And the picture on the right is her picture after it was put through the computerized version of beauty. And I think what we find is that we've lost something, haven't we? To conform to science and the rules of science to reduce everything down to the algorithms. Her lips didn't fit into the equation so they were forced to conform and the computer melded them down to a more realistic, more beautiful form. It's interesting. A photo of Bridget Bardot was put through the program. Her full and puckered lips were deflated. And her world famous beauty seemed less striking. She seems less like herself. So what I want to argue is that one of the dangers of Positivism when it is embraced to the extreme, is that the process of operationalizing. Taking that abstract and turning it into a variable. Is that something is lost in the process. This reductionist process is inevitable. In this case, beauty, or sexiness, or hotness, has been reduced to a set of algorithms. And the end result is not as pleasing, it does not do justice, to what the original was. And that's sort of its inherent danger.

So what does this mean for alternative medicine and for all of the health providers that have come here

and are interested in all these different disciplines? Well here's the challenge. How do we fit this thing called Vitalism into Positivistic science which relies on empirical indicators? How are you going to operationalize Vitalism or Innate or Chi? And how are you going to do this capturing the complexity of the terms validly doing justice? And in fact, this is just a partial list. Yesterday we talked about the vital impulse in homeopathy. Ayurveda talked about time and season and the magnetism of the planet. Taste, smell, mantras and chanting. How do you turn chanting into a variable? Should it be said precisely three times for 30 seconds each at a frequency of this? This much vibrato? How do you quantify a mantra or a chant or singing? How do you do that? How do you force that into this box?

> That s what the challenge of Positivism is.

As Dr. Roberts talked about yesterday, which I thought was beautiful, a right relationship with the world around you. How do you measure that? How right are you with the world? Six, eight, ninety? Put a number on that. That's what the challenge of Positivism is.

I think Dr. Molly also yesterday said "Vitalism for me is the 'what if.'" How do you capture the 'what if.' And she also said, "what do you lose if you can't capture the 'what if,' you lose out on the possibilities" How do we capture the beauty and the sacredness of the doctor-patient interaction when you have to use empirical variables. Now this is not to totally 'poo-poo,' Sorry, I did it. I did make the scat reference. I had to do. That's the bar that's been there. And I actually teach a class called Deviant Behavior. It's nicknamed as 'sluts, nuts and perverts' class. People pay a lot of money for me talk about things I should not be talking about in public. And then they go home and tell their parents and then their parents are very, very upset with higher education. And I always tell my students once you get in the toilet you could never get out. All you do is swirl around. And maybe it's the opposite way. And so again, I'm the one who took us in the toilet and I'm the one just swirling around. So I don't mean to 'poo-poo' Positivism completely because it is a wonderful tool. And I think we should definitely embrace Positivism for what it's worth as a tool of knowing. It is not 'knowing', it is a tool 'of knowing.' It's a one type of knowing. So then Positivism is absolutely incredible for say looking at surface indications. Your, what do they call it, the Subluxation Station. All that data that you get. That's great and that tells you a lot about how effective you're doing pre and post adjustment. The effects of acupuncture on the vascular system, we've got a lot of data on that, don't we Dr. Morris? A lot. And not just the vascular system. You choose a system, we've got data on it. Correct? Yes we do. On physiological effects that come after the treatment. Related biochemical or humeral changes, we've got all that and that's wonderful. That gives us one piece of the puzzle. Sometimes when I give this lecture, chiropractors leave and they say 'good, we don't have to do science anymore, I hate randomized controlled trials.' That's not what I'm saying. I am not suggesting that we give up science. That's the easy way out. No, you have to, we need to do science. And science can give us part of the picture. It's very good at giving us concrete indicators of the expressions of Vitalism. Its challenge is trying to get all that comes before.

Another problem with Reductionism is that the Covering law tends to create inadequate indicators. Vitalism is constantly adapting and adjusting. And that's the sense we got from Dr. Koch's lecture yesterday. It's that if your body is constantly maintaining, preserving, fighting off, then how do we know where's it at? Again, Positivism assumes this kind of predictive world, this world that you can control, this world that any point in time you know what's going on in the

equation. If Vitalism is a little messier than that, and your body is maybe higher or lower than what is average or what might be predicted, how do we measure that with a cross sectional picture of what's going on, which is what Positivism can give us and not much more. So the outcome is not necessarily a single point in time, it's not a tangible variable. And that's a huge challenge. The outcomes are also very, very different depending on the type practitioner. There's a lot of evidence out there, Shawnton Karma, Kristen Berry, has talked a lot about homeopathy and Great Britain. Where's Peter? Let me just get your facial reaction. We've got the general practitioner-trained homeopath and then the lay homeopath. Is there a difference between those two types of practitioners? Yes and you have a very good poker face, right, because there is a huge difference, a huge difference, is there not?

In fact Kristen Berry, after doing an ethnographic study said there are qualitatively different practitioners. I mean this is not a huge surprise, but in two patients that have similar symptomatology, there were a huge difference in the remedies that were eventually prescribed to these people. Well, *duh*, you would expect that if every patient is individual and unique and has its own constitution. But she also found there was a huge difference in the time taken to do that patient history. And so again, there are different ways of training. Indeed a college trained ayurvedic practitioner that will practice in an integrative clinic that embraces biomedicine will behave and operate towards different objectives than the purists' traditional ayurvedic practitioner. Also what matters is the world view of the patient. If a patient, ayurvedic patient, and this was a study done by [Nurandus ???] which was very interesting. And what they found was that ayurvedic patients that didn't really buy into ayurveda, which is sort of what we talked about this morning that Chiropractors aren't doing a good job teaching their patients about what chiropractic is. If you have a patient that doesn't 'get' chiropractic, the results that they get are not going to attribute it to chiropractic. And you guys have that all the time. Like I had…. my husband had a patient and he came in and said 'Yeah, yeah, you adjusted me and I'm feeling a lot better but I think it was because I've been walking backwards on the treadmill. And so he didn't get it. So it may or may not of been walking backwards on the treadmill. It might have been that he slept upside down on his head. Could have been because he drank turpentine, I don't know. But if they're not part of the system they're not going to attribute the effects to the cause you want them to. And we find that in a number of disciplines ayurveda is true as well.

Here's a problem with outcomes, in that, when you look at best practice guidelines or you look at scientific data. When we talk about the outcomes generally they talk in terms of therapeutic efficacy. I want to raise the question, what does this mean? And to whom are we talking about therapeutic efficacy? Because one thing the literature shows us from Kristen Berry, and Humphreys, and Greenhaye, is that patients will define the outcomes very differently from the scientist and sometimes different from the practitioner. Efficacy for alternative medical patients did not equal relief from physical symptoms. And so if all we're looking at is the one thing we can measure well, the physiology and the changes in blood chemistry that happen after you adjust or after you give someone a remedy or a treatment than we're going to miss out on a lot. And when you talk to the patients themselves, these are what they got out of their alternative medical treatments.

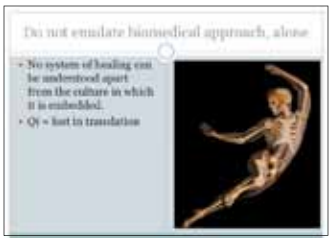
They attributed changes in health beliefs. Gaining meaning of the illness experience. A changed view of their body. Others reported transformational spiritual healing. An altered sense of identity. A sense of control over their health care and their lives. Others gained spiritual meaning that involved a renewed understanding of the connection of their mind, body and spirit. Others reported to the efficacy in the out-

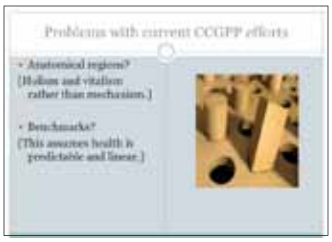
come of the relationship in gaining a didactic relationship with the therapist. A randomized controlled trial is not going to pick up on any of these outcomes, correct? Should it? Cause these are all in some ways, to me, indicators of a vitalistic relationship. These are outcomes that are very real, and very tangible and very important, but they're not amendable to science as we're doing it right now. Randomized controlled trials do not and can not capture this information.

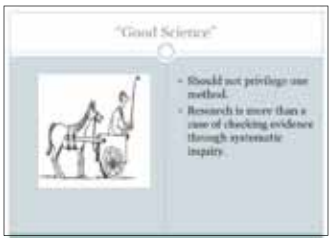
It's not a cause and effect; this is a very unpredictable, spontaneous type of an outcome that happens. It's also very important to know, and some of this echoes what Dr. Roberts said yesterday so I won't spend a whole lot of time, in that Positivism doesn't operate in a vacuum, but there is a larger social context in which this is occurring. And it's very clear, and all of you could probably tell me more about this than I can tell you, in that we exist in an audit culture. You might call this government mentality. This idea about cost effectiveness and accountability and this idea that there's definitely been a shift from a clinical focus to a managerial one. Resource allocation is being based on the evidence of efficacy and cost effective treatments. We exist in the eras where the major players are third party payers and they are sort of medically inclined but not medically trained. They are not humanist, there are basically bureaucrats and for them the bottom line is the spreadsheet. It's not healing. It's not amazing didactic relationships with patients and the healer. So they're playing a very different game. It's an era where the rules of the game are definitely Positivistic, cost effective, accountability and sort of lexicon bound that there's a certain preference for the language that is used. It's also important to know that Positivism has kind of achieved a sort of hegemony in the world.

There's little scientific funding for research of the type that you in this room might be interested in. And Dr. Roberts talked about that yesterday. The idea that randomized controlled trials have a tendency in funding to be biased. A lot of the funding comes from pharmaceuticals companies that have a vested interest in the findings. As Hess in 1988 wrote 'It takes a lot of gold to meet the gold standard.' Which implies there's a lot politics in what goes on. Paradigms prevent the publication of findings. There is a famous case in Nature, a very legitimate peer reviewed scientific journal, when there were Dutch immunological research going on which basically showed some evidence for homeopathic dilutions that could not be explained away by the placebo affect. And I was talking about this with Dr. Fisher yesterday and there was little bit more going on in the case, but what had happened is that the findings which basically created some tentative support for the homeopathic theories where not believed. They were considered too fantastic to believe. The editors required the research team to prove the findings and replicate them seventy more times.

And on the seventy first time they wanted to go an observe, and it didn't quite meet the scientist bar of evidence, and so the article was only published with editorial reservation and editorial found there was not physical basis for the effects. And future articles submitted by the same team of researchers were simply dismissed and not accepted by the journal. And so it's interesting, sometimes you do all the right things, but if the way that your world view has come about is then not accepted by a legitimate peer reviewed article that is then not taken into consideration by the evidence based process. If your evidence is not considered evidence it's not going to make it into best practices. So there's a whole politics of science about how you get into the journals and things of that nature. And you should be very clear and skeptical about the notion of Peer Review. I'll be honest, when I went to the RAC conference they were very open and they said Peer Review doesn't happen in the chiropractic journals. It's doesn't happen and this was from a former editor of the JMPT. Because he said there are not many chiropractic researchers and by the time they submit a







journal I already know who's worked with who, what their results are and so when they come in everyone knows who's been working on what. So there isn't any blind review. I'll send it to Dana or I'll send it to Scott or I'll send it to Thomas. We pretend we don't know whose article this is but we all know it is. And so the RAC conference…they came right out of it there's no Peer Review in Chiropractic journals. There's no "objectivity" in Positivism. And they obviously talked about it, right? Very openly?

Scientific proof. I've got a study, it made it into best practices. Does that mean right? Does that mean I've discovered a Universal Law? Does that then usher chiropractic, and homeopathy, and naturopathy, to a seat at the table with medicine? Is it that easy? You just play the game and then they welcome you to the red carpet. 'We've been waiting for you. Thanks for doing that RCT. Thanks. Now you can come on in.' Is that how this game is played? Is that what the context is? It's not. It's not that easy.

I have a bird's nest here. What's different in this picture? (Unintelligible audience response) Okay. So you've got three pretty eggs. And then you've got a random feather. And then Placedo Domingo will come out and he'll start…you know. So you've got this strange egg. What is this strange egg doing in the nest? Who knows this story? What type of egg is this? (Unintelligible audience response) This is actually an egg from the cuckoo bird. The cuckoo bird. Now what is the cuckoo bird doing in another nest? He steals the nest. Cuckoo bird is brilliant. The cuckoo bird, she has things to do. She has air to fly. She's got trees to go buzz in. She doesn't have time to sit on an egg, and then nurture, and feed a youngling. She's got things to do. She's like a diva bird. 'I'm out. I've got things to do.' And so the cuckoo bird will actually find an unprotected nest. Shove out one of the eggs that should be there and lay her own. She's very opportunistic. She'll lay her own egg. This other bird, say it's a robin; I don't know I'm not a bird expert. But the other bird doesn't know any better, and so she will sit on this egg and her three babies and this stranger is born. She doesn't notice the difference, she loves it anyways and she raises it. And so there's an old saying basically the tactic is the idea. You know the saying 'if you can't beat them join them.' The tactic is 'if you can't beat them steal from them.' And that's sort of

> I was so impressed with the wealth and the breadth of that knowledge.

what's happening. Linda Barnes actually has written a fascinating article. She's a medical anthropologist on acupuncture. And acupuncture is one of these amazing philosophies that is so deep. How much have you really got everything of what Dr. Morris said yesterday because there's a quiz in 15 minutes? Were you not totally overwhelmed? And ayurveda. I was overwhelmed, like 'wow this is amazing' and 'wow is she speaking English because I don't get this.' Let's just sing together, because I can experience that. I mean I was so impressed with the wealth and the breadth of that knowledge. And the problem is that medicine has the power to co-opt and Dr. Roberts talked about that. This is not a surprise. But if medicine sees something that it likes it procures, it takes, it's called professional dominance, they've been doing this for 50 years.

And the problem is that we have, according to biomedicine, we have a *little* bit of evidence to support acupuncture. I know you're probably are having a near heart attack. You're like 'what, I don't believe that.' But according to biomedicine the evidence that they wish to accept, but it's very limited for acupuncture. And what the science can accept, physicians will then say, 'Okay, well we can do that. We can do. Oh, *analgesic* effects. We can do that. We'll teach that on a weekend seminar. We'll burn that on a CD and sell it on eBay. How does that sound? You stole my heart.

And medicine says 'We can do that. We'll add that to our tool kit. That'll be really cool. I've got some extra room next to my syringes and prescription drugs for an activator, or for some homeopathics, or for some needles. I'll throw that in my bag. That's cool. I can do that too. Right?' And the problem is that when you divorce a technique or a therapy from the philosophy that it is embedded in, you've just made a mockery of that entire discipline.

And that's sort of what's happening in acupuncture. Linda Barnes talks about this, and that we call it Medical Acupuncture. Which to me is a total oxymoron because they don't go together. And you don't just get to take what you want from acupuncture it's not the easy. You have to take it all hook, line and sinker. It's a philosophy. It's a world view. It's just not a 'put a needle in me. Thanks, I feel better.'
Another potential problem is integrative medicine. Which is a great word and it seems really positive but as Holemburg has shown us, integrative medicine doesn't necessarily mean that you are going to be accepted in as an equal. And so, how many of you had had this happen at Thanksgiving? You've got the overflow. Who's not going to be able to sit at the table with the big people. So integrative medicine, for alternative medicine, basically means that you're sitting at the kiddie table eating all the leftovers. (Audience applause).

Integrative medicine is a great idea, but in the United States there's actually not any literature to support that it's occurring. What integrative medicine really needs is that, according to Holemburg, is the use of exclusionary and demarcationary closure. The doctors still rule the place. They're still the gods. And in one study, the acupuncturist, and the chiropractors, massage therapist, were symbolically put in the basement. Now how's that. 'Oh, you're here to see the chiropractor? Yeah, they're down in subfloor two. Good luck to you.' So even in the architectural space assigned to these disciplines was subordinate to the real doctors that were on the ground floor. And the medical doctors still take dominance in patient charting. They regulated the practitioners to a restricted set of competencies. "You can do that, but don't do anything else. Don't teach them your philosophy. Don't be talking that Vitalism stuff." They appropriated techniques from the less powerful practitioners and they continue to use biomedical language as the only acceptable language. So that sublaxation term or that Vitalism term…'no, we don't use those here.' And so you have to be very much aware of asking yourself the question 'what is the true objective here?' Is it integration or is it assimilation? Is it acceptance or marginalization? What do you really want?

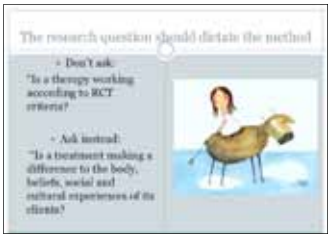
Well here's some alternative. My husband made me promise that I would not rail the entire time. So I'll spend 30 seconds talking about something different. Here's a suggestion. Rather than just exclusively focus on this Positivism manifestation, known as evidence based practice, there are other models out there that are working very well for more holistic disciplines. Nursing and psychotherapy, they're also creating best practices guidelines. They use something called 'Narrative Based Medicine' instead of evidence based medicine. And it involves this assumption that healing goes on in a relationship between the patient and the doctor. And in order to capture that, you've got to talk to the patient and capture their view of things or their and then merge that with what's going on with the doctor. There is also, I should go back but I don't want to because it will take up time, in that there's a new, and I just discovered this last night, something called a narrative evidence based medicine. which merges the best of both worlds. And if we could all come together and sing Kumbaya, I would sing Kumbaya to the narrative evidence based medicine that is just emerging out there by authors like Calipcus and Mathiasin and Rita and Theresa Greenhye and England. And the idea is that you merge this moral generosity, this view of the patient and the patient's

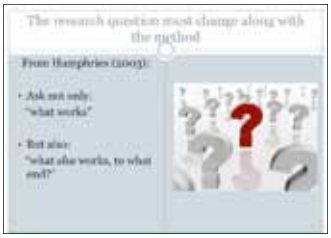
view of the physician with a close reading of the medical encounter as a text. And you know that's very foreign. But talk about, but its a new and a very exciting way to capture not only the clinical efficacy of what's going on in the healing encounter but also to capture the Vitalistic experiences that are going on as well. So you're merging your quantitative with a qualitative methodology. And hopefully finding out a lot. So what I am suggesting is that alternative medicine needs alternative methods to prove it. We have to understand that patients are not all uniform and they're not totally predictable.

So we have to respond to individual patients not statistical averages. Kristen Berry asserts that anthropological methods that tap into the phenomenological and the experiential are actually more appropriate to look at evidence based medicine and alternative medicine as the Positivist methods. Evidence needs to be evaluated that reflects on the everyday lived experience. My favorite quote was from a student who published in the student versions of the British medical journal and he said 'using evidence based medicine to apply to alternative medicine is the equivalent of trying to measure the beauty of a rose with a steel ruler.' And I think that's what we're trying to do, to the deficit of everything of the complexity of what we've been talking about for two days. Whatever we do, the science of alternative medicine has to be attuned to not only curing but also healing. Alternative medicine is more than a bodily outcome. It's more than symptom chasing and the reduction of symptoms. It's about so much more that we talked about. The beauty, the sacredness, the relationships, the things we can not see. There's also an ongoing interdependency with social, physical, and spiritual. You can not understand a therapy if without also understanding the culture in which it's embedded.

We have to do something about using randomized trials as the arbitrage of truth. There was an interesting article that was published in the JMPT about two years ago that basically said the same thing about PJ Miller, and she basically made an interesting argument that we have paths of evidence that is both quantitative and qualitative and its about time that the chiropractic profession and their efforts for best practices start looking at the qualitative data. Well it was ignored. That was two years ago and in the latest article by Jay Triano he doesn't mention that article. And others of us who have critiqued evidence based medicine have said 'you know what, there's alternative forms of evidence; let's start taking a look at them,' and they've been virtually ignored. And that's a little bit disheartening. So what I'm arguing is that for alternative medicine to not simply emulate biomedicine because there are two different world views, they're two different ways of camping, two ways of doing science that are completely different. You've got to look further. One of the problems is that Chi as we learned about yesterday is literally lost in translation or unintentionally defined.

Because it would be lost in translation. What do we lose when we singleheartedly embrace positivist evidence based medicine? Problems with GGCCGPP, sorry I have a "C" in there but there are a lot of initials. They claim to be patient centered. Well you're not going to be patient centered unless you actually talk to the patients and let the patients talk to their self. We're not doing that in the Chiropractic profession right now. We could but we're not. It should be outcomes based. Well that's great. Again, use positivism as a tool to give you the knowledge that it can lend, but we also have to understand that Vitalism implies a process which is not amendable to the Positivism methods that we're currently using. Are we creating individualized guidelines? Well no not when we rely on meta-analysis. Heterogeneity is important. Every patient is individual. Anatomical regions. Every committee CCGPP has been assigned an anatomical region. Well that reflects mechanistic thinking, doesn't





it? As if the lower back is not connected to the cervical region, it's not connected to your big toe, it's not connected to being right with the world. How about some science to produce that backs up the holes in Vitalism rather than simply the mechanism the parts of the body. Benchmarks which is what Jay Triano affirms, we need to create. Well, that's great but that assumes that health is predictable. That it's linear. That in any point in time you can trace and predict where a patient could be and should be. And as we heard, Vitalism has a feedback loop.

> Does science give us objective knowledge about an independently existing reality that s Positivism?

There's retracing. There's patients going back through symptoms that they've had. So it seems as though we have the cart before the horse. And know I'm running a little over, but I'm trying to go through the last sides I have as fast as I can. The problem it seems in evidence medicine we've privileged one method. And research is more that just rigorously bureaucratically checking the evidence through systematic inquiry through one set of rules. We've got the cart before the horse. We've got the randomized controlled trial and that's then dictating everything that we do. Well that's not how good science is done. You know the research model, you learned it in 6th grade and it's been reinforced since then. The research question is what comes first. Isn't that what good science is? And depending on the question, that then dictates the method. We have it exactly backwards. We're riding the horse backwards. We say, 'here are the rules of the game. Here's the randomized trial that's what we have to do.' And then we form the question according to the methodology. That's backward.

I'm sorry, but once you're in the toilet all you do is swirl around. So here's a suggestion, rather than asking than the question, "Is a therapy working according to randomized controlled trial criteria?" Let's ask instead, "Is the treatment making a difference to the body, the beliefs, the social and cultural experience of its clients?" That's a more vitalistic, holistic, alternative of medicine type of question to ask. The research question has to change. Humprey's, she's a social worker, she suggest ask not only what works but also what else works and to what end. Be open. We need a more inclusive science rather than an exclusive science. So when we started this talk, I tried to force you into one pigeon hole or the other which you didn't want to go which is good. Does science give us objective knowledge about an independently existing reality that's Positivism? Or is there a possibility, just admit the possibility the rules may be different than what everybody wants to tell you.

There may not be a version of "A." There may a "B." There may be a "C." Is scientific knowledge really just relative? Very last closing thoughts. Here is what we should be thinking about: what kinds of questions produce what kinds of answers? And, what values underpin both? What values underpin both? There are multiple ways of knowing: qualitative, quantitative, multi-methods. We need to use all of them. We need to use all of them. I will leave you with those thoughts. Thank you.

Rob Scott, DC PhD

I want to ask a couple of questions. You know I appreciate the comments coming from the floor particularly about operationalizing this but Dr. Coulter said something that struck me. And he said we have to operationalize intellectually because I don't think we can hit the rubber to the road where everybody wants to be in the provider group without being able to understand and operationlize what we are even trying to talk about first. A couple of questions- To create a movement in the healthcare marketplace that we are all trying to accomplish with our institutions and professions to have some impact with change the way we kind of conceptionlize healthcare, to me, that means we have to take this concept of Vitalism and put it into a form that is going to be, first of all, defensible. So when I start hearing the conversations we heard.

First of all Dr. Fisher talked about the vital forces and I said in the context of our presentations, well that makes sense. It's a systems series approach; it's a naturalized apology according to what Dr. Greco presented yesterday. Complexity theory and that's the empirical part of it. Then I hear Dr. Koch talking about a more metaphysical vitalistic perspective which is kind of the in theory thing that kind of drives the empirical part it. So to me those are not mutually exclusive things but we can get hung up a lot in that conversation. If we have to create a dialog about Vitalism that is going to have to be able to go out and to attract as many like-minded people who may not know they are like-minded because of our terminology. We have to create a philosophical model for that, as philosophically defensible as possible. So I would be curious to know from folks the sociologists, philosophers in particular what their thoughts are on this conversation from a philosophical defensive model. Will it create the movement, the social movement that we are trying to achieve with this?

Ian Coulter, PhD

Well, you have to create an environment where intellectual free thought is possible. Historically, Chiropractors weren't those kinds of models. Academic freedom has not been the strongest concept in chiropractic colleges because presidents were like Gods and the question were not would you jump but how high would you jump? So this whole notion on the freedom to pursue contrary intellectual ideas that may conflict with the present institution is just one of the things. So sociologist and the university we have academic freedom and we are allowed to, we are given the support to pursue our ideas. Then we are rewarded for doing it. So that the other thing you got to have time, I mean basically RAND was a think tank where I worked. And when I first went there if you walked past him he was sitting there with his feet up on his desk thinking. That's not true anymore because he

doesn't have time to think. It was a think tank! If you are going to have a think tank people are going to have to be supported to think, they got to have down time to do that. So I think you are going to have to develop an intellectual environment where it's alright to be a radical, where it is alright to be outside the box, and in fact you actually support people to do that. And then they've got to be rewarded. They've got to be able to publish it they need the support to do that. And of course the sort of philosophical thinking you are talking about is not the sort of thing your are going to get an NIH grant for the institution has to do that. But then I would make a distinction encouraging people in the institution join the dialog on thinking to think, debate, and to argue. And I put a great premium on debate and argument because I think, as I have said many times this weekend, you don't advance a field by offense or flattery but you advance it by critical dialog I think. And having to defend your ideas advances it. But then the next step is developing a position for the institution. So there is a difference between having a whole bunch of Mavericks do their own thing in intellectual thinking and having their ideas at the end of the day the president, the leadership has to come up with a document that's what I call a live document, to use a vitalistic metaphor again.

By alive, it's just not a mission statement he put in a brochure and puts out because nobody in the institution reads it and soon you know no body follows it. You need to buy, and at LACC we did this we published it you remember, we took a year out did a lot of retreats, we debated, we read the literature, we brought in outside philosophers and we actually created a philosophical position for what was in LACC. That then became the guideline for the Advantage Program, if you remember, we revised the curriculum. So I think there are two sorts of levels to do this. How do you intellectual, to do this. And I also would say you bring in outside people, I am a great believer in Chiropractic of the big bar of steel policy, right. Because most chiropractic colleges can't build a small animal lab, if you want to do small animal research then go pay and do it in someone else's which is what CCE does at its school of energy. So you don't have enough resources to have a whole stable of philosophers here but you certainly can bring people in as you have seen from the last two days there are people who want to come and join in the dialog and participate with you. So you need to have thinkers, you need to have writers, it needs to be published, it needs to get reviewed, it needs to be debated and argued. But at the end of the day the institution has to come up with a philosophical position that you'll buy into because at some point there has got to be a consensus of this is what life stands for.

Monica Greco, PhD

I agree; I'm trying to decide between most of what you said or everything you said, particularly about the fact that there has to be a kind of thinking dynamism going on. I am a little bit struck by this idea of developing a philosophy, in terms of the philosophical statement that we can somehow fix and then apply or use as a brand name almost. I am perplexed by that because I just wonder how that fits with the spirit of what philosophers do. In the sense in which part of the philosophical enterprise is not to pin yourself to concepts in such a way that they trap you. And so I am here and prompted to reflect on philosophy as done by philosophers and philosophy as something done by and or adopted or evident with in a practice. As a university you can bring in philosophers if you don't want to nurture them yourself. And what I mean is in a department of philosophy or something like that. This goes very much in the direction of what Ian was saying to nurture a philosophical dialog should be free; it should be able to test its own survival value in the world, as it were.

But I do wonder about the idea of whether it is necessary to develop a philosophical position but you are then obliging yourself to stick to it and whether there is a since in which a philosophy is implicit in your practice. And there are perhaps other ways of making it pub-




lic might be to do but with no so much debating it as philosophy but debating it as practice and value of the practice. I don't know if I am making myself clear.

Ian Coulter, PhD

I think that as an ex-president, there are two kinds of philosophies. What I said about the academic freedom I mean people working as philosophy, right? Doing what ever they like. But what I mean as an institution is that, I think it is important to define life sort of where you stand so I think you need a philosophical statement to say what is life actually about. David may be one of your philosophers choosing what he very well likes but you may say I ain't putting that on anything David, you know, go here and try heavy to support you. I think that one of the things you need to do is, and it's like any other academic discipline, if you remember in the old days if you look at the basic sciences in chiropractic they were taught by chiropractors. I would tell you that they usually had read the textbook about two days before they actually taught them to the students. I have had a lot of discussions with instructors who had not gone to a university—they had no science degree; they hadn't PhD's but the students actually passed those exams.

By the way just as a footnote [at one point others] tried to make all the state chiropractic students sit in the medical exams. You know why they stopped? Because the chiropractic students outperformed the medical students. But anyway if you look at the programs I have taught, they were not being taught by really well educated scientists, they were being taught by guys who were doing their best. They actually began recruiting outside scientist, you remember, without insulting anybody here, I hope not. But basically we got people other people didn't want to employ. Didn't we? Everyone knows this is true. Now if you go to any chiropractic college, look at the faculty, superb. Ok, now I would say that you need to get some chiropractors trained in philosophy. You need to go and take this as discipline and that should be no different than taking anatomy and physiology. You need to have people in the institution who have gone through a rigorous training, who actually know what philosophy is. And they should know how to participate.

Monica Greco, PhD

Or may I add, I mentioned in my talk yesterday, somebody who calls herself an empirical philosopher, Annmarie Mol. She is a philosopher. She is employed in a medical school as an ethicist but her research is ethnographic so she researches as an anthropologist would do by going out into the field and describing practices. She describes them with explicit intent to bringing out the concepts that are implicit in the practice. And that's the sense in which her philosophy is empirical. Now it's different, you know, practitioners do what they do and the value of what they do is in what they do rather than in what they say or what they describe themselves as. And there is perhaps a sense in having someone describe them and making the value explicit, putting the words to it. Again I say in a way to resist it that you can develop a philosophy that you can then stick to or that you can use as your flag because I think that's a very dangerous strategy.

Ian Coulter, PhD

I should say that even if you do develop a position it's a live document. It's alive which means it can change, you're not going to bring down the ten tablets from the mountain. Not that, but you still got to have a position you can sort of look at that says this is what we stand for or what characterized Life College as opposed to other colleges. And I think it's coherence to the actual faculty as well so they can see this is what we are about.

David Koch, DC

Great discussion on the process of philosophy since I teach philosophy and try and do philosophy I am not a formally trained philosopher, I am a chiropractor. I appreciate that on so many different levels. Don't take

it as any criticism but understand that's the reality we are talking about. I don't think we are talking about the processes of philosophy implicit in chiropractic, naturopathy, general medicine, I think we are talking about a specific product. I think we are talking about a concept and I think we are trying to get a handle on that concept. Which means we really can't figure out how to rationalize the concept by another death of a thousand cuts. And I am certainly not going to be involved in inflicting that second death of a thousand cuts because the proposition I imposed is that the idea itself has unrealized merit.

We are going to talk some more about how we can capture that idea in a marketable way. Whether any idea will continue to grow and live, Vitalism is a concept that has been around for three thousand years. We aren't the first people to change it, grew it or shrunk it. But at some point we are going to have to come down and say can we put that esoteric idea into a concrete enough form that we can use it for what ideas can be used for, it doesn't arrest the product, it doesn't arrest the process. But if the idea that life itself has a healing power, a self regenerating power that we should acknowledge and depend on and utilize in our business of healthcare specifically has value then I'm not going to feel like my needs are satisfied until I make some kind of contribution on how we can advance that idea. Not further contribute to the process of philosophy or the process of science, but use the idea as a thing to its fullest ability.

Joseph Pizzorno, ND

For instance NCCAM has recognized this as an issue. So this is the organization here in the U.S that is funding the complementary alternative care initiatives. And they actually have a group that as about a year and half ago, working with NCCAM and Georgetown who have identified the fact that when you are talking about healing professions that are systems approaches. You know there not therapies per se like the EMS and ultrasound but they're a systems approach to health. Those get into very complex methodologies. And there are groups that are meeting to figure out good methodologies. Because the question you always come back to is "Well, until there's something better than logical positivism or hypothetical deductive reasoning or whatever the models are, then what are they?" And Yvonne's mentioned some things so maybe it's a ability to collect as much of this pool of information as possible. Again to refute or support your model as you move forward. Dr. Coulter and I were in the back room talking about this because he is intimately involved in that and I hope he could have the opportunity to share with you maybe where the status of that conversation is because I know it's very important to everybody in the room. So thanks very much Yvonne. We're going to move into the next stage. If I could ask all of our presenters to come up and take a seat up on the panel and we'll let the games begin. This is the portion that Dr. Coulter alluded to this morning. We've had more than a day now to have presentations and conversations and get a baseline for where we're at.

And this is the opportunity where we're going to go into a two hour session with a break. Where we're going to start to ask the questions, delve into some things and really try to put some framework around some of these issues that have arisen through the last day and half. My goal in this experience is this, Dr. Coulter alluded to it. We often as vitalistic healthcare people like to talk a lot about our premises and our principles, but very often we don't have the opportunity to have outside professional discipline people criticized areas where we may not have a lot of expertise in those areas. We need to take advantage of those opportunities and I hope as we get into these conversations we'll be able to do that. I've asked Dr. Coulter to moderate this. Obviously he's had a lot of experience in moderating panels and obvious very knowledgeable in the experience. But we also want you folks to be involved in this as well. So as you'll see there are microphones here and here. You've heard a lot of information. You have a lot of

questions. I'm going to ask that Dr. Coulter just kind of gets this process rolling. And as you hear things as conversations happen, please feel free to walk up to the microphone and just stand there and you'll be acknowledged and we'll take the opportunity to get all those questions answered. Sound fair? Excellent.

Ian Coulter, PhD

Open dialogue amongst all of us, and I'll pose the question. Just to make a foot note through the end about Yvonne's presentation. Peter and I, I think Peter has participated as well. There are groups of scientist now actually trying to deal with the issue about complex systems. And he mentioned Georgetown University. The Samueli Institute is having a retreat, actually a Minnesota conference in May in which we are bringing some of the leading thinkers. There are some people like R.S Bell for example. There are actually some good people that are developing these kind of research methods. I think Peter mentioned to me yesterday, you had had one in Germany earlier, I think. Belize as well. So just to tell you that the sort of things that Yvonne talked about, there are groups of very exciting thinkers are trying to delve into that issue. We're not going to have a dialogue amongst ourselves which we hope that you could listen to and later we'll join with you.

But I'm going to pose to the group, we've had a day and half now talking about Vitalism. So I think the first question I'll like to pose to you all collectively is, "Okay, so what do you think the future is of Vitalism? And then I'm going to ask you, "What do you think all of us to have a dialogue, what do you think the future is of Vitalism?" Does it have future? Do you think we should be worried about it? So what would you like to say?

Joseph Pizzorno, ND

I think the only solution to healthcare crisis is that we fully embrace Vitalism. But that does not mean we throw out ….(inaudible) But as Dr. Scott mentioned earlier, I have a book called the Encyclopedia to Natural Medicine. It sold over a million copies in six languages. I have another book which I'm most proud of is called Total Wellness. And that book I took the systems approach. I took the ten systems of the body and talked about how to improve their health. Over the twelve years since that book has come out, I've had other people come to me and say, "I think of my health in that way changed my way." Even in the Encyclopedia of Natural Medicine, which is very mechanistically, kind of green drug medicine, sold over forty times as many copies. Not one person has come to tell me that it's changed their life. I think that is what our vitalistic philosophy has to say. Has to offer and that is to find way to fundamental change people's life. And when we do that we're practicing the best of this medicine.

Ian Coulter, PhD

Peter, do you want to make a comment?

Peter Fisher, MD, FFHom

Well, what has come out of this conference to me is that there are many different Vitalisms. And I tried to make the distinction, I think Ian probably shares the distinction with me, of the difference between Vitalism in the sense of an animating principle. And this is dynamist or the Greek Plumor or Chi or prana. And Vitalism in the sense of vital reaction. And personally I think we've, the first category, the animating principle is metaphysical. There's always going to be different versions relating to different forms of medicine. And I think it is very difficult for that to have an impact in the practical. I think it's very difficult to compare or to know or to synthesize or to put them together. On the other hand what I've called vital reaction. Ways to stimulate the body's reaction I think it is something acceptable to being scientific investigation. To being thought together. There's a huge…as I tried to show there's a lot of evidence, and I was only scratching the surface. There's a lot of evidence from diverse fields that could be put together about how the body reactions can be




enhanced. How they can be exploited. How they can be enhanced. Very frequently actually reduce…. we of course have an epidemic of autoimmune disease. Of allergies and so on. These diseases indeed fibroses and a lot of the cancer you could view as a disease of hyperactivity. You can modulate how you could reduce those activities using not the treatment but the reaction to the treatment. So that's my perspective, I think bringing the whole concept of vital reaction center staged, and looking at various means in which you could exploit it and use it in a healing sense has huge potential. For me, the metaphysics are going to remain outside the daily politics for the foreseeable future.

Ian Coulter, PhD

I'm going to get Monica to speak a moment. Just to clarify what Peter is saying to, the problem I have and it's a problem I have with David, and David knows this, I'm quite willing to think there is a vitalistic kind of a characteristic in the saying that we say Vis Medicatrix Naturae. The moment you actually call it intelligence and the moment you call it innate intelligence, you've now used an animated metaphor. And this animated metaphor that I have the most duly with because it's nothing about Vis Medicatrix that forces your to use that metaphor; that's a choice. And I actually think in chiropractic that's a choice that's hurt you. Monica?

Monica Greco, PhD

In answer to the question 'is there a future for Vitalism,' I'd like to echo what Katrin was saying this morning by saying that there's a relevance in my view. There's a relevance of Vitalism to the individual body and to the medical encounter. To the sort of medicine you practice. But there's also relevance of Vitalism to the social body that is to how we interact together. And this is really it seems to me, what we are talking about here in part. In the context of the individual body or in relation to the individual, I even hesitated to use the word the body, to the individual sick person. There are many different ways to construct that vital principle or vital reaction. These will be relevant to each different practice and will be useful in those terms. In the terms that are specific to each practice within the philosophy of that practice. When it comes to collective social body however, I think what I tried to….the lesson I tried to draw through Isabelle Stengers from science complexity is the fact that we need to develop a different relationship to science, basically. And not let it trump every other discourse that is around. And this again I think echoes a lot of what has been said this morning by Yvonne about whether and how we ought to affirm our existence as different practices. How we frame the rules of our coexistence. Whether we must all conform to a single model in order to justify our existence or not. So that's where I'll leave it.

Ian Coulter, PhD

David, you had a comment?

David Koch, DC

I think that I have a big problem with the question of, "What do we think the future of Vitalism is?" And the problem is this: Vitalism is an idea. Ideas have the ability to manifest themselves as reality. They also have the ability the exist and not manifest itself. So I think as a philosopher interested in the idea of Vitalism and which is all I've articulated in the first half of my talk last night. I can't even begin to imagine what it will take for that idea to take on the potency that it seems to have in light of the fact that it's already been around for 3000 years. I don't know that there's anything new happening here in 2009 that will suddenly make that idea become more realized. I think that we're having this discussion because clearly the ideas that are currently potent in our healthcare system are creating a healthcare system that doesn't appear to be optimizing human health and doesn't appear to be affordable.

So all I can do, as a philosopher interested in ideas, metaphors, all these things that aren't real, and to the strict physicalist that only thinks that things are real and




measurable are real is to say the idea's still there. The human mind, not the body mind, not the enact intelligence, but the ego mind has the choice to use ideas or not use them. So my future hope for Vitalism remains that first remark I made at the beginning of my presentation. That at some point the human species will decide it can actually live its life better if it is willing to consider the possibility that there's a greater consciousness that at work in its own body than its mind body. I can't offer anymore speculation of hope or not hope because we love to play with ideas. We love to torment them out of existence but ultimately they only become effective when we apply them.

Ian Coulter, PhD

But it seems to me that if we take the expression 'an idea of whose time as come.' it seems to me that at the moment for philosophically this is probably the best of time the worst of time. We certainly know it's the worst of time economically, but in terms of being able to change the dialogue and the discussion would seem to me as the best of time. So I'm not sure if I agree. It may've been around for 3000 years but the question is the things that we could do now to make this become real if you like to have it realized. And it seems to me like, at least in my lifetime, it's difficult for me to think of any era that would be better for this discussion than now. I mean you don't have to convince Americans that America their healthcare system is in great disarray. I mean we don't even have to have debate anymore, right? So it seems to me the questions that are going to be raised in America, what are we going to do about that? So to go back to what Joe said if you look at this sort of burden of chronic illness, I think a very convincing case be made for now thinking about that vitalistically. We know that thinking about it in terms of biomedical part it's not doing so well. Molly you tried to …

Molly Roberts, MD

Well, what's been coming up for me as we've been talking is I really think we're all old enough as a species to hold all these different paradigms in our heads at one time. What keeps coming to me is I have a wallpaper on my computer that is called Sunday in the Park from the Chicago museum. It's this huge wall sized painting and I love going to the Chicago museum and staring at that painting. I will sit there for an hour and stare at that painting. And what I'm looking at is all of those aspects. I'm looking at the blank canvas. Is this person put all of these little points of paint on that canvas. I'm looking at each point as an individual point. I'm looking at the entire picture of it and seeing what a beautiful work of art. What a piece of genius that the picture is. And there's no difference in mind of the beauty of each of those pieces of paint and the overall picture. I can look at rose and measure it and be amazed by the science of how that came about. And I could also be amazed at the beauty of it. And I think that's where Vitalism has a future. Is that we are… I think we're old enough to hold onto these different paradigms at the same. I mean we were talking yesterday at lunch about religions. And how, you know, where religion gets into a problem is if we see the religion as our faith and that's the truth as we know it and there's no other truth on this planet other than the truth that we have.

Ian Coulter, PhD

I think you would have to ask is does that, if we incorporate, does that bring us to a different kind of practice? Does that bring a different kind of graduate? Does that bring us a different kind of outcome? And finally, does it actually develop a research paradigm as well? So I think despite all the debate you may have, at the end of the day, the question you need to fundamentally ask is the patient one. At the end of the day does that lead us to a provider that gives a totally different kind of experience and outcome to the patient, because eventually you want to produce graduates who service the public?

Brian McAulay

I'm Brian McAulay and I am the Provost here at Life University and my request for the comments from the

panel goes to my role as a nurturer and a facilitator of intellectual discourse. In general, for this institution we had, have had a conversation such as Ian has talked about and made the decision that we are an institution based upon vitalistic principles. We have done that explicitly and intentionally and once we made that commitment we realized that long with that is a commitment to exploring this idea and notion of Vitalism. And that was the reason for this conference, of course. But we realize this is not the end of the conversation it is just the beginning.

We also recognized that Vitalism exists at the periphery of our universe as a marginalized and highly tangential field of inquiry at this point. So, we also know that the characteristics that distinguish conversations that are closer to the center have, they have certain elements. They have recognized bodies of scholars. They have a common jargon. They have agreed upon modes of scholarship and inquiry and so on. And we realize we don't yet have those. So my question to the panel is very concrete, since I am living in a very concrete world of the Provost and that is we all agree this is a wonderful step we have taken. We also agree that it is a small step. What do you see as the next steps that we need to go into in terms of advancing in this dialog?

Ian Coulter, PhD

Faculty and development, faculty and development, faculty and development, I mean that's like you want to know how to do problem-based learning the three people on board– the dean, the dean, the dean. Basically you've got to take faculty and put resources into them to develop them, I mean that. I always say that chiropractic is unique. So, excuse the metaphor but there is an old expression on making a silk purse out of a sow's ear. If you want to know what it means I'll explain it to you but the people you've got is the talent you've got, the pool you got. I don't know if there is any pool of really well trained chiropractic philosophers out there. I don't know them if there are, that of publishing in scholarly [journals] and so on, and doing research and so on, scholarship in their field. So you probably can't go out and steal them from LACC or National, so on and so on. The challenge, I think for you, as the Provost is ok if we want to start this development within this college and we really want to have a very dynamic creditable program in this area then you have to put it into the development of faculty. You send them off for training. You support them to get advanced degrees. You make sure, because they probably won't get research grants that you give them grants to do it. You give them a chance, like David, to write books. You do what you have to do. So I, think you just look at what you got and you make it into want you need. I just think its faculty and development.

David Koch, DC

I keep getting the uncomfortable feeling that this is what chiropractic needs to do about advancing Vitalism. What chiropractic is doing right now about trying to advance Vitalism is get a bunch of other people who think they are into advancing Vitalism to discuss what to do about it. And I am actually asking you if you are aware of the difference between those two.

Ian Coulter, PhD

Yeah, but he asked a very specific problem as the Provost. So I thought of what should he do and so I'm telling him that's what he should do.

Rob Scott, DC PhD

The question in the context of the broader cosmology of all the institutions and the professions that have a vitalistic profession, prospective, how do we advance the conversation? And I think that's David's point. This is not a conversation about chiropractic, necessarily Life University although, are hosting this but trying to allow a group of professionals with a shared philosophical underpinning that we have been discussing to have conversations about what is the next step. How do we allow

this movement, this to get out to the society that we can create some change and acknowledgement and recognition and impact our entire society?

Ian Coulter, PhD

I don't know. Anyone else want to take this?

Monica Greco, PhD

I would answer that question with a word: "connection". What do chiropractors need to do? They need to connect. Connect with other like-minded professions. But also there is academic, this is a world of academic philosophers out there whose ideas are very compatible with your practices. So you need to connect to them as well. There are philosophers who relate, bridge if you like, your world with a world of scientist. And that's the bridge that needs to be built.

Peter Fisher, MD, FFHom

I think, if you are going to make this bite you need to I, I, I agree with Monica you need to connect. You need to connect with related sciences and this is what I tried to demonstrate at the beginning of my presentation yesterday. That is idea of vital reaction is out there, they are all over the place actually. There are thousands of demonstrations. There is homesis, homeotagosis, rebound effects, there's paradoxical effects, there's feedback, all these effects are clearly very closely related to what we are talking about here in homeography. And they have never been put together. No one has seen an interest in seeing them as one thing as witness here with the huge number of different names. Essentially the same phenomenon it goes by. So I think I agree that it's connection. Finding scientific connections, finding areas with which you can align yourself whether it's perhaps a bubble, whether an established method, developing a really good robust scientific method is a big job. It should never be underestimated, if you try and do it yourself people will say "oh, it's just you", or "the replications come from one institution we don't believe it". So if you could find methods, they are out there well, well validated that you can adopt. My model, that I mentioned earlier, measures your own outcome profile. There is such a thing, your patients, it patient centered, your patients dominate at least some of the outcomes. What is important to you? And it's well validated. So, you know, I think it is connect, find methods, find findings that are at least related to you and see how you can work with that.

William Morris, LAc, PhD

This whole thing went into the underground with Flexner, and then with the Eisenberg study it exploded. We are actually in a renaissance and explosion of Vitalism, I think. Chinese medicine presence is larger than it has ever been. And the real question for me is how do we frame this in a way that can be acceptable for the process and procedures of research? And I think that conversation does come with philosophers, it does come with sociologists. So I commend Life University for doing this. It has to be operationalized intellectually and we found a common bond of dialogue which is the Vitalist concept. Because once it chunks down to control of procedures, ICD codes, who gets reimbursed that's where this stuff starts to fall apart. As long as we can keep the dialog at this level and engage a creative query between the communities of interest I think we could form a coalition of the powerful, in fact.

Joseph Pizzorno, ND

As I mentioned yesterday, the foundations project is an age-old foundation formal is an answer to the question you asked. So we have gotten together a hundred healthcare professionals mostly M.D.'s but we also have D.C.'s and M.D.'s, Ph.D.'s, Iris also mentioned she was in the group and we are creating this text book, its going to be about a 900 page text book. The first chunk is about Dives-matrix-material and then we are going to say, "Now how does that manifest in clinical diagnosis, clinical treatment, evaluating whether or not the patient is actually being cured, or just having disease symptom suppression, etc." So we are actually going through the




process of saying how this is manifest in a very logical matter throughout all of our practice. And we hope that will then go to the schools and the schools will then design their curriculums around full manifestation of Dives-matrix-material.

Ian Coulter, PhD

Just to make a comment building coalitions and building this broad of a coalition is really what you shouldn't do. I think, what we call last night, the coalition against the axis of evil, but anyway. It's a political process, right? So if you think about it, it's a quid pro quo process because if you go to interact with people to get them to join a coalition you've got to bring something to the table as well. What is a chiropractor going to bring to the table? Well the truth is you are the biggest of the CAM groups, actually the wealthiest of the CAM groups, believe it or not, you are the most established, you have the biggest colleges, you have the most students and the most practitioners. And you probably know more about the political process than anyone else. So what have you done historically? Well I was talking last night with Bill about in Kansas, who has naturopaths getting licensure? Who do you reckon it was? Chiropractors, the association took great opposition to them getting licensed, right? Well, I'm just saying to you the coalition is absolutely right and I agree with Bill the time has come. The Eisenberg's [of the world have] done that, right, so there is a tremendous opportunity here should include the coalition. I thought the fact that holistic medicine would open up its charter and let you in.

And I have to tell you that chiropractors have been often guilty of the sin of self-exclusion. I know you were kept out of a lot of things but I go to wellness conferences and there would be two chiropractors there. And they are getting up and using words that Palmer used and saying that wellness was invented in 1974 and I'm going "aww". I could show you Palmer from 1880, you see what I mean? When you build coalitions like this you got to get out and participate. So if you take yourself out of the game, now we all know that historically particularly chiropractors you were rejected. You were excluded and so on. But it's not that true now, so you got to make sure it's not self exclusion. And the gentleman here has been waiting for a long time.

Audience Member

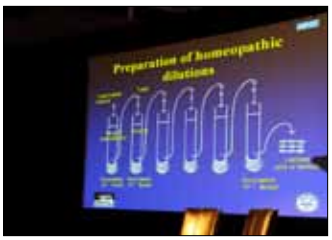
I'm a student here at this institution and I am very interested in Vitalism. So I am really enjoying today's and yesterday's discussion. I just wanted to ask, can someone be fully vitalistic if their focus is [on] diagnosis and the addressing of symptoms and disease? Doesn't the treatment of disease and symptoms address the facts more without fully supporting an individual's system or their innate intelligence? And aren't we second-guessing the healing priorities in processes of the body itself? I'm particularly interested in Monica and everyone else's input on this.

Monica Greco, PhD

I am intrigued that you should be interested in my answer rather than one from a practitioner. But I will speak through the voice of a practitioner in history. I am thinking of the work from Viktor von Weizsäcker, who was a Vitalist in very much the spirit of Caunguilhem. So, what I would qualify as a Vitalist contemporary, compatible with spirit of the present. He argued very much that we should cease to consider the event of disease as an event happening as or to an object but rather as an event happening to a subject. And many should be asking questions that can only be asked of a subject. Questions relating to, you know, intentions, futurity, value and so on. He was a German writer and he claimed that [the] German modal verbs (speaks in German), which in English would translate as 'can, should, must, want.' These are verbs that reflect a kind of subjective way of feeling that would reflect all the uncertainty that goes with being a subject.

If I say I want something I am implying that something isn't there already. So its presence that is and isn't there





at the same time and we should treat everything that happens to our bodies and ourselves in the same way. So he proposed nothing other than suspending the criteria and objectivity all together when it comes to treating a patient. So the disease might be there but the value of that event is not pre-given, that's not the problem that we are addressing.

So on the basis of that line of thought, which I have explored in some depth in my work I would say yes with a Vitalist conception goes the suspension of objectivity and that's partly what, you know, if you follow the reasoning all the way through, but that, following the reasoning all the way through can be very problematic on a whole host of levels. Not least at the level that it makes you socially not very functioning as a practice.

Ian Coulter, PhD

Would ask Molly if she would like to answer as well since because she has trained very much in this diagnostic model so I would be interested in how you would actually deal with this or resolve this issue as well?

Molly Roberts, MD

Yes, you could probably tell I'm not the typical MD that's out there. So you know I have to keep stepping into that mind and then stepping into my own mind. The way I do things is that I put….the way I do things is I look for the juice, and I go for where the juice is. And it's the vitality. Where is the Vitalism in that person and finding that, you could call that diagnosis of where the juice is, I guess if you want to. But and then looking at what is getting in the way of that, what's blocking that juiciness from coming up and having somebody be juicy in their life. And that could mean whatever it could mean in terms of their relationships, in terms of their broken, it could mean whatever it is. And so on that level I think that looking at diagnosis. … we all have to find some framework in order to be able to dialogue with each other. And so if somebody is with me and we're talking, a lot of it is me having them figure out what's going on for them. Having them diagnose it then we get into a dialogue of how to clear that out. I just want to make a comment because you said something very important too me about the axis of evil, okay.

Okay, I want to address that because it's sitting there, it's right out there. And I really want to comment that the moment you depersonalize someone, you've lost them. You've lost their alliance. You've lost all of it. And if you want a dialogue going. If you want alliances then I think it's really important to take each individual medical doctor as they are and bring them into the discussion. One of the things that I was going to say to your question was that what you're stepping into is not the answers, you're stepping into the questions. And the moment you start trying to answer those questions is where the discomfort starts to come in. And the head and the heart need to be involved in this discussion. Both the head and the heart. And so you know, I want to caution being careful about making the medical system the evil empire that you're trying to fight against because the moment you do that you've lost. We've all lost. The moment a medical doctor does that to you, they've lost. So I think we've got to open this up and really start turning it into…. if we're talking about Vitalism then we're talking about souls. We're talking about individuals. We're talking about stepping into that acknowledgement of the individual. And so hold on to that when you're talking about the medical system as well. Is my comment.

David Koch, DC

I think you also have to be very careful to be aware that when we're working with concepts we have to be very careful sorters. We have to sort things out into their proper categories. So I would answer you're question this way. Whether you're vitalistic or not doesn't have anything to do with what procedure you're trying to carry out. Whether you're deciding that the best way you can act on that concept is to go diagnose a disease and address the disease. Being vitalistic would mean

that you would diagnose and address the disease specifically from within a framework of recognizing the body is the healer. But on the other hand if you say, because I recognize the body as the healer than I don't want to spend my time trying to characterize a disease and work against the disease, I'd rather spend my time trying to facilitate the body's ability to a better healer you haven't become any more or less vitalistic by doing so, you just made a different choice about what interaction you want to have with the patient. So we have to be really careful to sort out the concept of the body's own intrinsic wisdom and our recognition of it from the values we're going to place on how we interact.

You know this whole discussion of Vitalism is completely peripheral to whether we're in a managed care crisis or whether medicine is dominant or whether the can subjects are dominant. Those are ….you know. Vitalism as a concept has been around for almost three thousand years. It will continue to have its affect three thousand years from now if that concept represents truth more closely than the concept that the body is just stupid machinery. And the whole question of CAM and medical professions versus alternative professions will be way in the past and the idea is more precious, powerful and durable than any problems we might have from it or solve with it.

Ian Coulter, PhD

Your question does raise a major issue here. I suffer from knowing too much of your history unfortunately. Because there has been a traditional ??? whether we like it or not that if you're a vitalist you don't have to do a diagnosis. So we had this whole spit about spomalelasus versus the diagnosis. If the body is just going to heal itself, all I have to do is free up the neural system to actually let the body….. and I don't even know whether it got cancer or not. And I'm telling you it's hurt you in the past and it's one of the issues that we shouldn't just ignore here because we should put it out to mention it.

It is a major issue. It really is a major issue because you can see that one interpretation of Vitalism would actually say that I'm just treating the whole person. I'm just releasing their vital spirit. What do I need to know a diagnosis for? And there was a group in chiropractic, and they may still exist, historically who made that argument. Will the problem with that, if you want to be a gatekeeper, primary contact in this culture, in this kind of health delivery system, try proposing that. You won't be a gatekeeper for very long. Because the public and that is going to say, whether you like it or not, the state is supposed to act in the interest of the public even partaking from their ignorance. And that means protecting them when they present to you with something that's inappropriate for you to actually treat when they really do have an advance disease.

Doesn't mean you still couldn't treat you them vitalistically and so on but you've got to at least recognize that it's at least something that you don't treat. So you asked, what sounded like an innocent question, that has incredible historical importance in this situation, and has had that before.

Audience Member

….and if addressing diseases or treating it is actually second-guessing the prioritization or the priorities the body's already determined or their innate intelligence had already determined to address?

Peter Fisher, MD, FFHom

I would respond by bringing the patient back to center stage. Patients come to us with symptoms and with diagnoses and it's our job to act in their best interest. The main reason in making a diagnosis, as far as I'm concerned, is to know…..well the first reason, is to know whether homeopathy or whatever I do is an appropriate treatment. If you've got established hyperthyroidism. If you've got pulmonary tuberculosis. I will refuse point blank to treat you. It is not in your best interest and I'm not going to in anyway encourage

you. However, having decided homeopathy might be an appropriate treatment then of course the diagnosis become rather important. You are then treating the person and not the disease.

Yvonne Villanueva-Russell, PhD

I think Ian said earlier that words come with baggage, and the elephant in the room is that something like enact intelligence can't be use because it has baggage. But diagnosis has baggage with it as well. It's not a term that's owned by chiropractic. It's a biomedical term. And so I think the question refers that if you talk about diagnosis and you talk about treatments than you've sold you soul and you medicalized. And that's the implication of what's being discussed here and it's an interesting point for people to ponder.

William Morris, LAc, PhD

Chinese medicine uses the diagnosis as the basis for making clinical decisions. It happens in the context of a referential system of thought which is Chi based. And so it's necessary to capture information coming from the other systems in the room, the patient, in order to make some sense of the patterns that are unfolding which is all still a manifestation of Chi. So in reality it has to do with the position of the practitioner to their relationship to their understanding of life and how that proceeds and then connecting to treatment. So is every practitioner who is a vitalist perfect in that connection every time? No. They lose sight of it as they get consumed with the business of the clinical practice and then they return to it and it's this constant oscillation between a vital consciousness in practice versus the other. As opposed to if it's a mechanistic point of view, the same exact diagnostic procedures and theoretical constructs could be used to come to a conclusion.

Ian Coulter, PhD

But it seemed to me yesterday, whatever word you called it, Ayurvedic to Chinese medicine, naturopathy, homeopathy, all do something and with a formalized system that looks very like a diagnosis to me. But you don't use the word, that's fine, but if you notice if you listen to Ayurvedic, they have a very formal structure for having to decide if it's appropriate or not. That's what Peter just said, homeopathy has the same thing. You can't use Vitalism for not having such a system, whatever you call it. You can't use it for a saying, you don't even need to bother with one. They all have one. I guess we should let someone else ask a question to. Can we come back, David? Okay, say it now.

David Koch, DC

I'm going to come down strongly on the side of Ian, and Will, and everybody who says that in fact don't worry about the word, big problems with the word, so let's call it Fred. The concept that the person whose being asked for help has to go through some process that identifies what problem exist that they could probably offer help to, is just as intrinsic in a vitalistic interaction as it is in a mechanistic interaction.

Ian Coulter, PhD

Which is the point I was making.

David Koch, DC

But, what problem it is that you're addressing? It could be different. Right now there's a huge [discussion about] whether you can help people with their health by addressing their subluxations and not addressing their disease or whether you have to address their disease in order to get reimbursed or in order to help them with their health. But those are all questions about what problems we think we can get involved with and help. And all of the health practitioners on this panel actually look at what problems we can help with in entirely different ways and even address different problems. But the fundamental question of whether to be a healthcare provider you have to identify a problem that a person's asking you to help with before you could offer some useful help. I don't even think it's worth arguing about. Chiropractors argue about whether to call it analysis or diagnosis.




They weren't arguing about whether they should try to identify a problem because BJ Palmer told us find the subluxation before you do anything. But Vitalism says even if the organism heals itself inside…earlier Ian said it was the organism, the self healing. Who needs health-care providers? But Vitalism doesn't say that because the organism has that property there are no limits to it. There's no room for anybody helping. Healthcare is a proposition for me to help you. The question is, do I help you thinking you're a piece of machinery I need to fix, or do I help you thinking you're a vital, self-creating organism yourself? That's the only thing that I'm really discussing in this particular conference about whether we should vitalistic or mechanistic in our approach to helping people. I think it remains an intrinsic part of the process.

Ian Coulter, PhD
Okay, Dave.

Audience Member
Okay, Dr. Coulter. Yesterday you made an ever-so-fleeting reference to the current state of physics and whether or not is was going in a vitalistic direction. And I'd like you to expand on whether the direction that physics has evolved into might someday bring it to a vitalistic or be perceived as a vitalistic science per se, or will that somehow connect this discussion with the physics discussion.

Ian Coulter, PhD
I didn't say they're going Vitalistic. I said they'll become very metaphysical. That is what I said.

Audience Member
There you go.

Ian Coulter, PhD
And among all the sciences at the moment, I would say physics is the most metaphysical. And it really comes down, to I think someone said earlier, It might have been Molly, said whether it's a wave equation or part of someone's reality. So they've got themselves into a conundrum now about what really is the reality we're dealing with. So physics, if you look at the moment is the most philosophical amongst all the sciences because they have the most troubles. The other one I would say that's right up there I would say is astronomy. I mean black holes and strings and worms. So the dealing with sort of phenomenon now that the metaphors don't work for it to be quite honest. Now what may happen is...I made the statement the one thing about technology, technology does give us wonderful new metaphors.

Computers have done that, right? So we could actually think of the brain as a computer. So where physics have got too far out in front of our conceptual frameworks to actually discuss what they're doing. I think that's part of the problem. That dealing with sort of levels of reality which if you look at most of our language and our metaphors are very concrete. I mean basically everything in this room that I'm conscious of is something I've got a name for it. I can say it's a chair. Every time I go to it I say it's a chair. I've got a meaning for it, right? So there's lots of things in this room I'm not conscious of, but the one's I'm not conscious of are probably not ones that I've got a word for. So where we talk about this vitalistic person, we do self-indications.

We actually create our own world. I indicate to me that you're talking to me. I indicate probably that you may be a chiropractor sounds like you've done quite a bit something with physics. I'm making indications to much to me and creating a meaning for you and then determine how I actually respond. So we're very assertive persons in the world, right? We insert our self meanings. Where do those meanings come from? They come from the words and language we have. The problem with physics, I think, [is that it has] gone far out in front of our language. And there's not good words in our language. Maybe an Eastern language because there are, but in our language we tend to have very concrete,



particularly Americans, you are very concretized. You know, that's the way you think about things mechanically. And so I think the challenge for….so what I said was if you ever want to see a look of metaphysical science now. I mean there's no debate in physics whether I'm metaphysical or not. The question for them is, can we find ways of constructing these metaphysics. Now, they'll allow us to keep advancing our research paradigm and they have some fairly major dilemmas and apparent contradictions. And so that's what I was saying.

Audience Member

But you don't see them forming into any form of Vitalism?

Ian Coulter, PhD

Well, within the field of systems theories that physics particularly, absolutely, because emergent properties is part of system theories and under traditional physics emergent properties didn't make any sense. I mean it's not only the whole is greater than the sum of its parts, the whole now emerges processes out that weren't there before. And there's a wonderful experiment with little robots. They created these little robots and the robots have to pick up little blue chips, right? And the only thing that's programmed in the robot is to pick up the blue chips. You know what happened? The robots started bucking into each other so that they can compete to pick up the chips.

You go, what happened? It was not in the programming. This emergent property happened for a very physical kind of thing. That's very puzzling you know, so next I'll be forming armies and religious cults to defend it. But anyways, just to tell you that emergent properties is a very interesting thing but emergent properties fit into Vitalism very well which is why I said systems theory has an advantage quite appealing to real hard nose scientist because they are now in that field. But also, pays care of some of the major concerns that vitalist has had.

David Koch, DC

I'd like to go further with that. Beautifully put Ian. Thank you. You could actually…if you remember yesterday I was talking about the fact that if we believe the brain can have a mind, and therefore we should also recognize that brain being a part of the body and the body being more complexly interactive than the brain it's a part of it has a mind. Philosophically what does that mean about the whole universe logically? That the emergent property of the whole universe would be a mind of the universe. By the way, it's not illogical. It's not mystical. It's actually probably what we're talking about when we talk about the universal intelligence, the connection. The whole thing is that if thought could emerge from a brain, from a body. If the conjoined action can emerge from multiple brains. We saw that on the screen the other day. Can thought emerge from the interaction of all particles of the universe interacting simultaneously at all times? The concept of an emergent mind to the universe is not philosophically or physically contradictory.

Audience Member

So I've had about twenty questions, just being in line here. My name is Sue Brown, I'm a chiropractor. Just a couple little things on what was just said. Steven Hawkins and the scientist will not be happy until they know the mind of God. Max Plank said the mind is the matrix of all matter. Leading as think tanks you're looking at nothing. What is that blank canvas upon which the entire universe is created? So I think that physics is totally willing to step into this arena. And coming to my question, and I'm not sure how this will be received but I often wonder if these vitalistic approaches are actually best served in this healthcare system. We've talked about the fact that the healthcare system comes with so much baggage. We've talked about the fact truly listening in a way of tuning into and connecting to what is emerging is so powerful in actually affecting change in an innovation.

In seeing the presentations yesterday, saw the presentation on Ayurveda, on traditional Chinese medicine. Disciplines that evolved in cultures where there wasn't this split between spirituality and science. And then see how chiropractic which developed in this culture that there was that, there is that division. Where there is this dominant medical model. And I wonder if part of this conversation, if it isn't at least prudent and valuable to say okay is we were to wipe that out, wipe out this current healthcare system, and say based on who we truly are, based on what we believe our philosophy, our principles were to create a vision of how would we interact with humanity. Would that at least be valuable in this discussion because it seems like so much of what we do is how can we fit it, how can we change it, how can we this, and it seems that if we don't look beyond to truly what is possible that it's just going to make everything harder.

Ian Coulter, PhD
I think that's a wonderful question because I think you hit on a really key point about Ayurvedic and traditional Chinese medicine although once to come to America they sense the same problem you do. And so I think you're right. It's called cultural authority; basically it's what it is in a way. How do you establish cultural authority so that in a culture that doesn't have that tradition it doesn't think that way? How do you get integrated? You want to take a stab, sorry Molly?

Molly Roberts, MD
Yes. It's an interesting idea and what was coming up for me was what my husband and I did as we were creating what were creating. And what we did every Wednesday at 1 pm, we would meet and nothing was able to get in the way. It was top priority. And we called it our visioning meeting. And what we did for an entire year every Wednesday at 1 o'clock is we would talk about what should medicine look like. What are the things we absolutely hate about medicine? What are the things that we loved about medicine? What were the things that gave us vitality and brought us closer to who we were as human beings? And that was a long process, it took a year.

And we created our practice out of that. And it would be wonderful to be able to have visioning meetings for what the future of medicine could be. The question is could you get people in enough of an alliance to sit down at the table and have that kind of visioning meeting and put that as our priority. It took a long time. We usually had more questions than we had answers and more frustrations than we had answers in the middle of the meeting.

Ian Coulter, PhD
I need to make one answer though. Can I do that? You need to create a social movement, and I'll give an example of one that was highly successful. I do a lot of research on HIV, particularly on our health. What most people don't understand is that the gay movement in the United States and the eight people who had HIV totally transformed that debate, that dialogue. They are on every committee of NIH. They changed what the research questions were. They changed the way we framed them and so on. Highly successful mobilization of a social movement.

Now how did they do it? Well it turned out a lot of them were in media. They were in print. A lot of them were writers, they were artists, they were incredible. Remember the cross across America? They mobilized all the mothers. You wouldn't believe. That was the greatest shock…. It has never been done before. Now, we've actually changed the whole dialogue. So can it be done? Yes, it can. The feminist movement, really despite what people say, was a breath of fresh air on the health field because they really changed the debate about birthing and a whole lot of things. Now they may not have achieved everything that they wanted. But these two social movements, that in the face of incredible opposition, pulled off an incredible achievement.




So yes, it can be done, even in our culture but it'll take a social movement to do it. So please, I hope it wasn't too far along …it takes a village to raise a child, it'll take more than a village to do this.

Rob Scott, DC PhD

I hate to do this because I know everybody's been standing patiently, but we do have a schedule to keep to and I'm going to suggest we just take one more very quick question directed at an individual so we can keep the panel discussion low. I'm not too sure who was at the microphone first.

Audience Member

I'm trying to figure out whom to direct this to. I guess you can see maybe who would like to take it, but my question would be that if we do decide to have an alliance and kind of create a different system than currently healthcare has done for Vitalism to be practiced in, how would we go about creating a set of best practice or practice guidelines for vitalistic practice?

Yvonne Villanueva-Russell, PhD

There isn't a perfect solution. One that I suggested was a narrative-based medicine merged with evidence-based medicine and that gives you the best of both worlds. It gives you the quantitative aspect to measure the outcomes but the qualitative to measure the process and the didactic relationship between what's going on holistically within the patient and then with the patient and the doctor. I think Dr. Pizzorno wants to say something quickly too.

Joseph Pizzorno, ND

So I see the ideal of healthcare system as one which has a primary care provider, and a [version] of the family practice M.D., and the vitalistic practitioners that we are creating. That's where primary care should be. And the M.D. should be off there doing their specialty care. I would assume they would mostly want to do anyway. And the third part of this however is public health. I think that public health and primary care should be getting the majority of the dollars. The majority of the attention. Not just the traditional care of traditional medicine. And when I say public health I'm talking about public health in its broadest sense. Public health, as you know, is accountable for 75% of the increased longevity in our country the last hundred years. So public health, not in terms of just contingent control which has been very helpful, but also in terms of things like teaching farmers how to grow their food so it has [better nutrition]. So it's all three: public health, primary care which is vitalistic, and then when we need that high tech intervention, we want to be really good, but it's the third choice.

Ian Coulter, PhD

And just so I can sum up. My job as the chair, I have this endowment chair, is to think big thoughts. And one of the one's that Bob Brooks gave who's here, is to think through what our new system would be, a wellness system in which medical doctors are not the gate keepers. It's a system to stop that expensive gate keeping system that would specialist in a way that Joe said, and then who would they be. Because I'd like to propose that they'd be the vitalist. But who knows? But they will at least, as I was pointing out, that there are people out there that could be gatekeepers. And that's you sitting in this room, and they're sitting in naturopathy, and homeopathy. There's a whole bunch of providers out there that are really wellness providers that whose major function is to treat chronic illness and prevent people getting ill, that could actually be gate keepers to this system. And I've been given the task of how to think how that would work and also what it would cost.

Rob Scott, DC PhD Closing Comments

Thank you everybody. I appreciate your participation. Thanks very much. We started yesterday by saying that this was the first of many great conversations to come, and I hope you've enjoyed it as much I've enjoyed participating in it. I think we were very successful in kicking off the inaugural conversation. It is the beginning and not the ending of this discussion is very evident from the number of questions that are still posed for us. I appreciate everybody's participation and attendance. Let's thank our panels for coming and participating with us today.

Thank you. Now don't clap too much because their job is not done. I mentioned yesterday the takeaway is important in what happens this afternoon. This is a formal end to our group discussion. And we're going to have lunch next door. All of you are welcome in participating with lunch. We're going to get on a bus and go to the hotel room ourselves for a little while to start trying to tackle this that we've been talking about and come up with something that is productive at least providing us some direction. Molly will. The afternoon of course is not over for you. So after lunch, please come back, be here. Michael Denton will be here for the afternoon.

Phenomenal presentation. You'll enjoy it in the context of the last day and a half. So please enjoy your time here on the campus for the rest of the afternoon and thanks so much and we'll see you again next year for the second conversation of the Life Source Octagon. Thank you.

Working toward consensus: vitalism and the vitalistic reaction

One of the goals of the Conference was to seek consensus around a definition of vitalism. After several hours of discussion, the faculty arrived at the following:

Vitalism is a recognition and respect for the inherent, self-organizing, self-maintaining, self-healing abilities of every individual.

The 'vital reaction' is an expression of the inherent ability of living organisms to self-heal.

For reference, Wikipedia's definition lists the following:
Vitalism, as defined by the Merriam-Webster dictionary,[1] is

- a doctrine that the functions of a living organism are due to a vital principle distinct from biochemical reactions
- a doctrine that the processes of life are not explicable by the laws of physics and chemistry alone and that life is in some part self-determining

Given this consensus, the group then tried to imagine 'what next?'

There was a clear sense that there was a need to operationalize these definitions, to expand the conversation about vitalism, and to seek a practical application of the information.

Specifically, a long discussion took place about how to accomplish this, and the group's recommendation was to hold a working summit of invited stakeholders in the broader spectrum of health policy-making to consider the implications of a vitalistic approach to health care, health promotion, health economics, etc.

Appendix

Katrin Kaeufer, PhD

Dr. Katrin Kaeufer is research director at the Presencing Institute, and Fellow at the Community Innovators Lab (CoLab) at MIT's Department of Urban Studies and Planning. Her current work includes a research focuses on social transformation and non-hierarchical coordination. Kaeufer earned her MBA and Ph.D. from Witten/Herdecke University, Germany. Her dissertation on Socially Responsible Banking was published as a book in 1996. She has consulted with mid-sized companies as well as global companies, non-profit organizations, the World Bank and with the United Nations Development Program in New York. She is also a founding member of the Presencing Institute.

Curriculum Vitae

I. Education
Doctoral Degree (magna cum laude), Witten/Herdecke University, Germany, Dept. of Economics and Management, 1995

MBA, Diplom Ökonomin, Witten/Herdecke University, Germany, Dept. of Economics and Business Administration (US M.B.A. equivalent), 1992

Global Studies Program, 1989–1990, Peace Studies
Around the World, with seminars at U.S. State Department and U.S. Congress, Washington, DC, USA
United Nations, New York City, USA
IMEMO, Moscow, USSR
Tartu University, Estonia
Freie Universität, Berlin, Germany
Gujarat Vidyapitth University, Ahmedabad, New Delhi, India
Hanoi University, Hanoi, Vietnam
Thammasat University/Chullanlong Kom University, Bangkok, Thailand
Sichuan University, Chengdu, China
International Christian University, Tokyo, Japan
University of Hawaii, Honolulu, USA
Colegio de Mexico, Manoa, Mexico City, Mexico

II. Academic Appointments
Research Director, Presencing Institute, 2007-present

Fellow, at the Community Innovators Lab (CoLab) at MIT's Department of Urban Studies and Planning, 2008-present

Research Affiliate, MIT- Sloan School of Management, 2001-2008

Visiting Scholar, MIT- Sloan School of Management, 1998–2001

Founding Researcher, Society for Organizational Learning, 1997–present

Lecturer, University of Innsbruck, Austria, 1997–present

Assistant Professor, Witten/Herdecke University, 1995–1997

III. Awards and Honors
Richard Beckhard Memorial Prize, 2003 (best paper in *Sloan School of Management Review*, 2002)

Scholarship from the Marshall Fund of the United States, 1994 and 1997

Winner of the Initiative Award, Foundation for Industrial Research, for the development of the global studies program Peace Studies Around the World, 1990

IV. Publications
Book:
Kaeufer, K. 1996. *Geldinstitute im Spannungsfeld zwischen monetärem und gesellschaftlichem Erfolg* (*Socially Responsible Banking: Two Case Studies*). Wiesbaden: Gabler.

Recent Articles:
Scharmer, C. O. and K. Kaeufer, 2008, Führung vor der leeren Leinwand, *OrganisationEntwicklung*, Nr. 2: 4-11.

Senge, P., Kaeufer, K. et.al 2006 *Knowledge, Relationships and Action for the Public Concern: Collaborating to Meet the Sustainability Challenge*, submitted to Sloan Management Review

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Vitalism Faculty: Biographies and Curriculum Vitae

Senge, P., and K. Kaeufer. 2001. Communities of Leaders or No Leadership at All. In S. Chowdhury, ed., *Management 21C* . New York: Prentice Hall.

Kaeufer, K. 2000. Learning from Civic Scenario Projects: A Tool for Facilitating Social Change? *United Nations Development Program Work Report.* New York.

Versteegen, U., C. O. Scharmer, and K. Kaeufer. 2001. Praxis Pentagon of Orgnizational Learning. *Reflections*, Vol. 2, no. 3: 36–44.

Kaeufer, K., and C. O. Scharmer. 2000. Universitaet als Schauplatz fuer den unternehmerischen Menschen (The University as a Birthplace for Entrepreneurs). In St. Laske et al., eds., **Universitaet im 21. Jahrhundert**, pp. 109–31. Munich: Rainer Hampp.

Language
German: native;
English: fluent;
Spanish, French, Russian: basic

Ian Douglass Coulter, Ph.D.

Dr. Coulter was born in New Zealand and holds degrees in sociology from the University of Canterbury (B.A., M.A. Honors) and the London School of Economics & Political Science (Ph.D.). Immigrating to Canada in 1969, he was an Associate Professor of Sociology at Laurentian University until 1976. From 1976 to 1979 he held the position of Associate Professor, Research Series, in the Faculty of Medicine, University of Toronto. In 1979 Dr. Coulter became the Executive Assistant to the Vice Provost of Health Sciences, University Toronto (later Assistant Vice Provost) with a continuing appointment in the Department of Behavioral Science in the Faculty of Medicine. In 1981 he was appointed Executive Vice President of the Canadian Memorial Chiropractic College, interim President in 1982, and President from 1982 to 1991. During 1991 Dr. Coulter was a Pew Fellow at the RAND/University of California at Los Angeles, Center for Health Policy Study from which he received a Certificate in Health Policy Analysis. Additional qualifications include a Diploma in Educational Management from the Institute of Educational Management, Harvard University.

From 1992 to 1995 Dr. Coulter was the Director of the UCLA/Drew University Minority Oral Health Research Center. In July of 1996 he was appointed as a full Professor in the School of Dentistry, UCLA, in the Division of Public Health and Community Dentistry (previously Section of Public Health Dentistry) a position he currently holds. He also currently holds the positions of Health Consultant, RAND; and Research Professor at the Southern California University of Health Sciences (formerly Los Angeles College of Chiropractic). During 2003 and 2004 Dr. Coulter was the Director of the Education Abroad Program for the University of California in Australia. January-June, 2005 he was on sabbatical as a Visiting Professor at the New Zealand Health Technology Assessment Center in the Christchurch School of Medicine, University of Otago.

From 2006 to 2008 Dr. Coulter also held the position of Vice President, Integrative Medicine and Clinical Research at the Samueli Institute. In 2007 the RAND Corporation and the Samueli Institute have created an endowment to support independent policy research on complementary, alternative and integrative medicine. Dr. Coulter was appointed as the RAND/ Samueli Chair for Integrative Medicine at RAND.

Personal

Birth: 30 January 1945, Timaru, New Zealand
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Marital Status: Married, two children
Wife - Adelaide
Children - Julien, Adrian

Curriculum Vitae

Education

B.A. University of Canterbury, New Zealand, 1968

M.A., (Honors) University of Canterbury, New Zealand, 1970

Ph.D. London School of Economics and Political Science University of London, England, 1977

Diploma in Educational Management Harvard University, 1988

Appendix

Certificate in Health Policy RAND/UCLA Center for Health Policy Study, 1991
Analysis

Present positions
RAND/Samueli Chair for Integrative Medicine, RAND Health, Santa Monica, 2007 to Present
The RAND Corporation and the Samueli Institute have created an endowment to support independent policy research on complementary, alternative and integrative medicine. The Samueli Institute Fund for Policy Studies in Integrative Medicine at RAND was established with funding from the Samueli Institute and funding from RAND. The fund supports: 1) Descriptive studies that will define complementary and alternative medicine practices and identify what kinds of health problems they can effectively treat. 2) The creation of innovative research methods for investigating complementary, alternative and integrative medicine. 3) The development of an evaluation process for health care systems' performance, including regulation, quality of care, financing and costs in relation to the integration of complementary and alternative medicine with traditional biomedicine.

Vice President, Integrative Medicine and Clinical Research, Samueli Institute for Information Biology 2006 to 2008

The Samueli Institute for Information Biology (SIIB) was started by Susan and Henry Samueli 2001 as a not-for-profit Institute for the purpose of conducting innovative and rigorous research on the frontiers of biology and healing in alternative, complementary, integrative and traditional medical practices. A unique aspect of the Institute is its explicit focus on investigating core assumptions underlying healing practices such as consciousness, energy, and information. It also focuses on evaluation of healing applications within mainstream healthcare such as integrative medicine and optimal healing environments. The Institute's long-term goals are to conduct research that will change perception about the fundamental nature of healing and to transform healthcare.

Professor, UCLA School of Dentistry, 1996 to Present
This is a tenured position at the rank of full Professor. The position involves the responsibility for two courses, "Behavioral Science" and "History & Ethics." In addition, it involves research into oral health and HIV; and the impact of reimbursement plans on the behavior of dentists and their patients.

Senior Health Policy Researcher, RAND, Santa Monica, 1992 to Present
This is a research position involved in various research projects within the field of health policy research. It involves currently working on the following investigations: the appropriateness of chiropractic care; the seriously mentally ill with HIV; the role of the nurse practitioner and the physician assistant; evidence practice for complementary and alternative medicine; integrative medicine.

Research Professor, Southern California University of Health Sciences (formerly Los Angeles College of Chiropractic), 1991 to Present
This position involves consulting on research projects. Current projects have included comparing medical and chiropractic education, and chiropractic treatment of the elderly.

Previous Employment History
Visiting Professor, 2004
New Zealand Health Technology Assessment Center, Christchurch School of Medicine, University of Otago, New Zealand.

Director, Australia Study Center, University of California Education Abroad Program, January, 2003 to December, 2004

Honorary Visiting Research Fellow, 2003-2004.
The School of Social Sciences in the Faculty of Humanities and Social Sciences, La Trobe University, Melbourne, Australia.

1992-1993 - Visiting Professor, UCLA School of Dentistry
1993-1996 - Adjunct Professor, UCLA School of Dentistry

1992-1995 - Director UCLA \ Drew University Minority Oral Health Research Center
This center was funded by NIDR to promote research on minorities and to develop minority researchers. Dr. Coulter was responsible for both administrative and research activities.

1981-1982 - Vice President, Canadian Memorial Chiropractic College
1982-1992 - President, Canadian Memorial Chiropractic College (CMCC)
Founded in 1945, CMCC is Canada's only chiropractic college. It offers a four year program in chiropractic preceded by a minimum of two years at university. CMCC has 600 students, a faculty of 100, and a support staff of 60. Its budget for 1991 was $7.2 million. The College is unique in Canada for the health sciences in that it receives no government funding and must rely on student tuition and alumni support for funding. The President reports to a Board of Directors appointed from across Canada

Vitalism Faculty: Biographies and Curriculum Vitae

but is responsible for the total administration of the College. The Board establishes policy and is responsible for choosing the President.

1979-1981 - Assistant Vice Provost, Health Sciences, University of Toronto.

This position was part of the Vice President Academic/ Provost's Office. The immediate supervisor was the Vice Provost for Health Sciences. Although the particular area of administrative responsibility was the health sciences, the Provost's Office was involved in most of the issues that affected the total institution. Dr. Coulter participated in the Budget Advisory Group and the Budget Development Group for the development of the total university budget and was responsible for the preparation of the health sciences budget. At that time the budget of the university was approximately $300 million. The position involved a variety of tasks primarily to do with the development of policies, explaining them to the various divisions, and ensuring they were being followed. In addition it involved participating in a variety of legal issues, such as terminations for cause, search committees for Deans, and liaison with over 20 teaching hospitals. Dr. Coulter had the primary responsibility for developing the affiliation contracts with the latter.

1976-1979 - Associate Professor, Research Series, Department of Behavioral Science, Community Health, Faculty of Medicine, University of Toronto, Canada.

Dr. Coulter joined the Faculty of Medicine as the project director of the first national study on chiropractic (and the first study on chiropractic to receive government funding). This was a large project employing some 16 persons. It remains the most extensive study ever conducted on chiropractic. He was responsible for the day-to-day management of the project, for the research design, and the data analysis.

1970-1976 - Professor in Sociology, Laurentian University, Canada.

Dr. Coulter began as a Lecturer in 1970 and ended as an Associate Professor (awarded tenure in 1976). Laurentian is a liberal arts, largely undergraduate program and he taught in four major areas: introductory sociology, sociological theory, social psychology, research methodology. Laurentian also had a very extensive off-campus teaching program (as the university of the north) and Dr. Coulter developed a 20 hour television course titled Introduction to Society with an accompanying two volume textbook.

1968-1970 - Teaching Fellow, Department of Psychology and Sociology, University of Canterbury, New Zealand.

Behavioral Scientist, Sepulveda Veteran's Hospital Administration Medical Center, 1993 - 1997
In this institution Dr. Coulter was involved as a Behavioral Scientist in the Center for the Study of Clinical Decision Making and Provider Behavior.

Adjunct Professor, Department of Behavioral Science, Community Health, Faculty of Medicine, University of Toronto, 1981 - 1998.
This position has involved teaching a compulsory graduate course in Health Policy Analysis and supervising graduate students.

Honors And Awards
Honorary Doctor of Humane Letters, Los Angeles Chiropractic College, Los Angeles, CA, 1985.
Award of Merit, Los Angeles College of Chiropractic, Los Angeles, California, 1985.
Honorary Member, Canadian Memorial Chiropractic College, Toronto, Ontario, 1985.
Fellow of the International College of Chiropractors (F.I.C.C.), 1986.
Honorary Member, Canadian Chiropractic Association, Toronto, Ontario, 1989.
Award of Merit, Canadian Memorial Chiropractic College; Toronto, Ontario, 1990.
Service Award, Northwestern College of Chiropractic, Bloomington, Minnesota, 1990.
Earl Homewood Scholarship Award, Canadian Memorial Chiropractic College, Toronto, Ontario 1991, 1992.
Presidential Citation Award, National College of Chiropractic, Lombard, Illinois, 1991.
Outstanding Service to Chiropractic Education Award, Palmer College of Chiropractic, Davenport, Iowa, 1991.
Honorary Award for The Advancement of the Chiropractic Profession, Palmer College of Chiropractic West, San Jose, California 1992.

Theses
M.A. Geriatrics: A Study in Role Conflict
Ph.D. A Philosophical and Theoretical Critique of "Homo Sociologicus" in Twentieth Century Sociology.

Teaching Experience
University of Canterbury, New Zealand, Department Psychology and Sociology, 1968, 1969.
Laurentian University, Sudbury, Canada, Department Anthropol-

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ogy and Sociology, 1970-1976.
University of Toronto, Canada, Department Behavioral Science, Faculty of Medicine, 1976-1992.
Canadian Memorial Chiropractic College, Toronto, Canada, 1981 - 1991.
Los Angeles Chiropractic College, Los Angeles, U.S.A., 1991-present.
University of California, Los Angeles, School of Dentistry, Division of Public Health & Community Dentistry, 1992-present.
University of California, Los Angeles, School of Medicine, Department of Internal Medicine, RWJ Clinical Scholars Graduate Program, 1997-present.
University of California, Los Angeles, School of Nursing, Graduate Program, 1997-present.
University of California, Faculty of Medicine, Doctoring Program, 2000-present

Areas of Undergraduate Teaching:

Social Sciences

- Sociological Theory
- Introductory Sociology
- Understanding Society
- Social Psychology
- The Individual and Society
- Research Methodology

Health Sciences

- Sociology of Health
- The Health Encounter
- Sociology of Professions
- Medical Sociology
- Behavioral Science
- Behavioral Science

Areas of Graduate Teaching:

Social Sciences

- Sociological Theory
- Political Sociology
- Sociology of Knowledge
- Medical Sociology
- Philosophy of Chiropractic
- Qualitative Research Methods
- Policy Analysis
- Politics and Health

Health Sciences

- Community Health
- Community Health Issues
- Issue & Policy Analysis of Health
- Chiropractic Health Care
- Alternative Health Care
- Qualitative Methods for Health Services Researchers

Areas of Professional Schools Teaching:

Dentistry, Medicine, Nursing, Chiropractic, Public Health

- Ethics
- Behavioral Science
- The Health Encounter
- Sociology of Health
- Professionalism
- Philosophy of Health

Ucla School Of Dentistry
"History and Ethics" PH414a (formerly CJT441b), Course Chair, 1st year dental students; 2001–2002; 2005-present.
"Introduction to Behavioral Science" PH432c, Course Chair, 2nd year dental students; 1999–2002.
"Health Policy Issues" PH423b, Course Chair, 3rd year dental students; 2006-2007.
"PPID (Professional Program for International Dentists) History and Ethics." This is a seminar course that was developed to provide a review for dentists from outside the U.S. enrolling in the UCLA School of Dentistry DDS degree program; 2002.

Ucla Rwj Clinical Scholars Program, Department Of Internal Medicine
"Theory and Health Services Research," Course Chair, 1997–2002.
"Qualitative Methods in Health Services Research," Course Chair, Summer 2000–2002.

University Of California, Los Angeles Guest Lectures
School of Dentistry
Health Policy Issues, PH423, 3rd year dental students (M. Marcus, course chair):
"How to Influence Health Policy Makers," 1991–2002.
Clinical Application of Quality Assurance, CJT424a, 4th year dental students (M. Marcus, course chair): "Introduction to the Theory and Concepts of Quality of Care," Sept. 30, 1994.
History and Ethics, CJT44lb: 1st year dental students and dental hygiene students (K. Atchison, course chair): "Professionalism and Ethical Responsibilities in Public Health," Jan. 24, 1996.
Culture and Health, PH423c: 3rd Year Dental Students (J. Freed, course chair):
"Social/Cultural Understanding of the Health Encounter," April 11, 1997; April 10, 1998.
"Impact of culture on patient care" April 9, 1999
Geriatric Dentistry: 2nd Year Dental Students (Janet Bauer, course chair),
"The Sociology of Aging," May 22, 1998; August, 1999-August, 2002.
Introduction to Evidence-based Dentistry I, OB441a, 1st year dental students (F. Chiappelli, course chair): "Introduction to EBD," "Health Services and EBD," and "Research in EBD: The Caries Study." Fall, 2005
"Putting the Practice Back Into Evidenced Based Practice Dentistry", March 4, 20
School of Medicine
Introduction to Complementary Medicine: "Public Health Aspects of Complementary Medicine," Presentation with Dr. D. Glik (School of Public Health, UCLA), April 15, 1996.
The Doctoring Program, Internal Medicine, School of Medicine
"Socialization of Medical Students." October 8, 1998.
Workshop "Professional and Medicine." November 16, 2000-2002

Vitalism Faculty: Biographies and Curriculum Vitae

Introduction to Complementary Medicine:
"Introduction to Chiropractic Care," April 1997, April 1998, February 1999

School of Public Health
Dental Care Administration, 439:
- "Measuring Health: Problems and Promises," April 5, 1993; April 10, 1996.
- "Concepts of Quality of Care for the 21st Century," April 12, 1993; April 24, 1996.
- "Assessing the Appropriateness of Care: Consensus Panels and Other Methods," May 3, 1993; May 15, 1996.

Organization and Financing of the Health Services System, HS200A:
- "Non-Medical Practitioners," November 26, 1997, November 26, 1998, January 26, 1999, December 2, 1999.

Health Care Administration, course #439
- "Measuring Health," April 16, 1998; 2001.
- "Appropriateness of Care," June 1, 1998.
- "Consensus Panels," April 23, 2001.

Environmental Health Sciences, Dr. W. Hinds, course chair
- Overview of Ethical Principles for Professionals. February 1, 2002
- Ethical Principles for Environmental and Occupational Health Scientists. March 3, 2008.
- The Ethics of Scientific Research. March 5, 2008.

School of Nursing
Doctoral Nursing Program: Philosophical Foundations of Nursing Science
- "Combining Qualitative and Quantitative Methods in Health Research. A Forced Marriage," 1995–1997.
- "Paradigmatic School of Thought: Thomas Kuhn," 1996–2001
- "Triangulation. The Technique of Integrating Quantitative and Qualitative Research Methods." 1998–2001.
- "Critical Rationalism and Thomas Kuhn," October 24, 2000-2002
- "Critical Appraisal of Theory." November 26, 2002

Graduate School of Nursing
- "Theoretical Foundations of Complementary Health Care: Chiropractic Care." 1999–2000.
- "Critical Rationalism." October, 2002
- "Thomas Kuhn and Paradigms." October, 2002

USC School Of Dentistry Guest Lectures
Evaluation of Scientific Information in Clinical Dentistry
"Social Sciences in Health Services Research." 1998–2001.

Los Angeles College Of Chiropractic Guest Lectures
Chiropractic Principles:
- "Cogent Reasoning," April 3, 1997
- "Critical Rationalism," May 10, 1997
- "Researching CAM & Chiropractic at RAND," July 18, 2008

Australian Universities Guest Lectures
"Paradigms and Health Care. Conventional, Complementary, Alternative and Integrative Medicine." La Trobe University School of Public Health, Melbourne, Australia, May 12, 2003; May 12, 2004.
"The Sociology of Health And Medicine: Alternative Health." La Trobe University School of Social Science, Melbourne, Australia, September 6, 2003.
"The Science of Nature Verses the Nature of Science." Presentation to the University of Queensland Marine Biology Program, Heron Island, Queensland, Australia, October 28, 2003.

New Zealand Universities Guest Lectures
"Paradigms of Health Care: Conventional, Alternative, Complementary, Integrative Medicine." La Trobe University School of Social Science, Beechworth Campus, Beechworth, Victoria, Australia, September 4, 2004.
"The RAND Evidence Based Practice Centre for CAM." University of Western Sydney, Sydney, Australia, November 5, 2004.
"The Growth of CAM: Sociological Explanations." University of Canterbury, Department of Sociology and Anthropology, University of Canterbury, Christchurch, May 4, 2005.
"Biomedicine and Complementary and Alternative Medicine. Can they be Integrated?" School of Sociology and Anthropology Seminar Series, University of Canterbury, Christchurch, New Zealand, May 6, 2005.
"Complementary and Alternative Medicine (CAM)." Lecture with Dr. Ray Kirk in Health and Health Care in New Zealand, HLTH401/601, Health Sciences Centre, University of Canterbury, Christchurch, New Zealand, May 11, 2005.
"Evidence Based Dentistry. Does the Emperor have any Clothes?" A Research and Reporting Club Seminar. Department of Oral Sciences, School of Dentistry, Otago University, Dunedin, New Zealand. May 24, 2005.

Faculty Advisor
Advisor for Laura Mansouri-Meinert for Ph.D. Thesis, California School of Professional Psychology. Ph.D. thesis title: "The Effects of Patient Recording of Chiropractic Recommendations on Recall and Adherence to Treatment Recommendations." 1996.
Member, thesis committee of Shadi Rad for the degree of Master

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of Science in Oral Biology and Medicine, UCLA School of Dentistry. Thesis title: "Psychosocial Aspects of Early Maxillary Protraction Therapy in Class III Children." 1998-1999. Robert Wood Johnson Clinical Scholars, 1997–2002.
Thesis reviewer. J.K. Simpson, "The Influence of Political Medicine in the Development of the Chiropractic Profession in Australia." Ph.D. thesis. University of Queensland, Australia, 2001.

Thesis Examiner
Thesis External Examiner. J.K. Simpson, "The Influence of Political Medicine in the Development of the Chiropractic Profession in Australia." Ph.D. thesis. University of Queensland, Australia, 2001.
Thesis External Examiner. A.F. Broom La, "Virtually Healthy: A Study Into The Impact of Internet Use on Disease Experiences and the Doctor/Patient Relationship," Ph.D. thesis, La Trobe University, Melbourne Australia School of Social Sciences, 2005.
Thesis External Examiner, Ondine Spitzer, Center for the Study of Health and Society, M.A. Thesis, University of Melbourne, Australia, 2005.
Thesis External Examiner, Kristine Hirschkorn, "Professionalization in Context: Audiences and Actors in the Case of Western Herbalism," Ph.D. thesis, McMaster University, Hamilton, Ontario, Canada November 15th, 2005.
Thesis External Examiner, Anske Robinson, "The PUC-CAM Study: Perspective on the Use in Community of CAM," Ph.D. Thesis, Monash University, Australia, October 10th, 2006.

Convocation Speaker
Los Angeles College of Chiropractic, Los Angeles, California
Northwestern College of Chiropractic, Bloomington, Minnesota
Anglo-European College of Chiropractic, Bournemouth, England
Canadian Memorial Chiropractic College, Toronto, Canada
Palmer College of Chiropractic, West, San Jose, California

Research Experience
1968-1969 Member, Canterbury Social-Medico Research Council, Christchurch, New Zealand.
1969 Research Consultant, Canterbury Women's Medical Association, New Zealand.
1970-1971 Research Associate, Dept. Anthropology and Sociology, Laurentian University, Canada.
1976-1979 Associate Professor (Research), Faculty of Medicine, University of Toronto, Canada.
1990-1991 Research Fellow, RAND/UCLA Center for Health Policy Study, U.S.A.
1992-1995 Director UCLA\ Drew University Minority Oral Health Research Center
1991-2001 Researcher Professor, Los Angeles College of Chiropractic (now the Southern California University of Health Sciences), U.S.A.
1992-2001 Health Consultant, RAND, Santa Monica, U.S.A.
1992-1996 Research Professor, School of Dentistry, UCLA, U.S.A.

Research Grants
1976-1979 National Health Research Development Program (NHRDP), Health and Welfare Canada. Study of Canadian Chiropractors. $460,000. Co-investigator.
1981-1986 Foundation For Chiropractic Education and Research, U.S.A. Secondary Analysis of Canadian Chiropractic Study. $15,000. Principal Investigator.
1987-1990 Foundation For Chiropractic Education & Research, U.S.A. Chiropractic Verses Medical Treatment of Low Back Pain, A Clinical Trial. $61,000. Principal Investigator.
1990-1991 Spinal Research Foundation, Winnipeg, Canada. Appropriateness of Chiropractic Care. $15,000. Principal Investigator.
1990-1991 British Columbia Chiropractic Association, Vancouver, Canada. Impact of Health Insurance on Chiropractic Utilization. $5,000. Principal Investigator.
1990-1991 Los Angeles College of Chiropractic Los Angeles, U.S.A. Appropriateness of Chiropractic Care. $10,000. Principal Investigator.
1991-1994 Foundation for Chiropractic Education and Research. The Appropriateness of Spinal Manipulation for Low Back Pain. $812,522. Project Director.
1992 National Chiropractic Mutual Insurance Corp., RAND. Study of Adherence Among Chiropractic Patients. $79,000. Principal Investigator.
1992-1995 NIDR, UCLA/Drew Minority Oral Health Research Center Grant. $1,355,498. Center Director.
1993-1996 Chiropractic Consortium for Research. Manipulation of the Cervical Spine Consensus Panel. $96,000. Principal Investigator.
1993-1996 NIA, RAND/Drew Exploratory Center for Research on Health Promotion in Older Minority Populations. Oral Health of Elderly African Americans. $1,500,000. Investigator. Co-Investigator; P.I.s Walter Allen/Raynard Kington.
1993-1995 Physician Payment Review Commission. Use of Non-Physician Providers for Primary Care. $82,376. Co-investigator. Principal Investigator, Peter Jacobson.
1993-1995 AHCPR. Observation Study of Expert Panels.

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$50,000 Minority Supplement Grant. Principal Investigator for the supplement. This is part of a larger grant "Assessing Appropriateness of Expert Panels: How Reliable?" $509,471. Principal Investigator, Paul Shekelle.

1995-1996 AHCPR. Comparison of Medical and Chiropractic Education. $80,459. Principal Investigator. This study is part of a larger trial comparing chiropractic and physical therapy. $1,000,000; Principal Investigator Dan Cherkin.

1995 Foundation for Chiropractic Education and Research. Analysis of Chiropractic Care of the Elderly. $5,000. Principal Investigator.

1995-1998 National Institute of Dental Research/Agency for Health Care Policy Research. Oral Health and Care of HIV Patients. $1.6 million. Co-Investigator. This is part of a large $20,000,000 project on HIV patients. Principal Investigator Martin Shapiro/Sam Bozzette.

1996-1999 American Dental Association. Dentist and Patient Behavior in Response to Reimbursement Levels in Dental Benefit Plans. July 1, 1996 - October 31, 1999. $554,000. Principal Investigator.

1996-2001 National Chiropractic Mutual Insurance Corporation. A Chiropractic Survey Kit for Consumer Assessment of Health Plans. July 1, 1996 - November 30, 2001. $298,858. Principal Investigator.

1997-2001 NIMH (RAND 96-0376). Improving HIV Treatment for the Seriously Mentally Ill. 5/97 - 8/2001, $3,496,298. Investigator; Principal Investigator Kanouse, K.

1997-1999 NCMIC, RAND/UCLA/Friendly Hills. Chiropractic Care of the Elderly: A Pilot Trial Comparing CGA with Chiropractic Care. $40,000. Principal Investigator.

1999-2002 Funded by the National Center for Complementary and Alternative Medicine (NCCAM), administered by the Agency for HealthCare Quality and Research (AHQR). "Evidence-based Practice Center Technical Support for the National Center for Complementary and Alternative Medicine (NCCAM)." 9/99 - 8/2002, $1.5 million. Principal Investigator.

1999 Hawaii Medical Service Association Foundation (HMSA). Assignment of Dental Benefits, Equal Benefits, Favored Nation Clauses and Their Impact on Dental Care. A Review of the Literature. Feb.-May, 1999, $10,000. Principal Investigator.

1999 American Dental Association. Access to Dental Care for Children in the Medicaid and CHIP Programs. May-December, 1999, $15,000. Principal Investigator.

2001-2003 National Institutes of Health/National Institute of Dental & Craniofacial Research: "Oral Health/Care Disparities in HIV Minority Populations." 1 R01 DE13729-01A1, 3/1/01 – 2/28/03. Amount: $248,466. (M. Marcus, P.I.; I. Coulter, Investigator).

2001-2003 National Institutes of Health. "Professional Education on Prostate Cancer: Primary health Care Providers." 9/1/01-8/31/03, Total direct: $822,440. (Michael Wilkes, P.I.; Coulter, Investigator).

2001-2005 National Center for Complementary and Alternative Medicine (NCCAM) RO1AT00872. "A Case Study of a Hospital Based Center for Integrative Medicine." Oct. 2001–Aug. 2005 (no cost extension 2006), $2,120,838, Principal Investigator.

2002 American College of Gastroenterology Clinical Research Award. "Determinants of Provider Behavior and Factors Influencing the Process of Health Care Delivery to Patients with "Low-Risk" Non-Variceal Upper Gastrointestinal Hemorrhage." (Ian Gralnek, P.I.; Coulter, Investigator).

2002-2003 The Robert Wood Johnson Foundation: "Pipeline, Profession, and Practice: Community-Based Dental Program to Improve Access (Planning Phase)." 6/1/02-1/31/03; Amount: $150,000. (R. Andersen PI, Coulter Investigator)

2005-2010 National Cancer Institute 1R25CA09847: "Statewide Initiative: Disseminate End-of-Life Education." (Michael Wilkes, P.I.; Coulter, Investigator).

2007-2008 Samueli Institute/Department of Defense: MET-DEF (Metabolic Defense) Supplements in the Military. Amount $459,000 (Coulter PI)

2008-2009 Department of Defense 08-540 "Plan for a Service-Member Integrated Health Program," $650,000. (Co PI Coulter, Michael Hansen)

2008-2009 Samueli Institute/Department of Defense, **"**An Evaluation Toolkit for the Biopsychosocial Model" (Coulter PI) $149,426

Presentations (Since 1990)

2008

"How Do We Plan for a Successful Research Program" Scripps Clinical Research Program, November 14, 2008, La Joya, CA.

"Chair External Review of the Division of Technique, Principles, Biomechanics and Orthopedics." Texas Chiropractic College; 23rd-24th July, Pasadena, Texas.

"Researching CAM at RAND" TATRC Meeting, RAND, Santa Monica, California, June 24, 2008.

"Importance of Respect to Health Professionals." Convocation Speech at the Southern California University of Health Sciences, Los Angeles, CA, April 18, 2008.

"Designing Research Programs." Samueli Institute, Alexandria, VA, March 13, 2008.

"Ethical Principles." Samueli Institute, Alexandria, VA, March 12, 2008.

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2007
"Critique of Theory." A RAND/Samueli Institute education seminar, Santa Monica, California, October, 23, 2007.
"Biomedicine and CAM: Cooperation, Co-optation, Integration, or Clash of the Titans?" VISN 22 Complimentary Alternative Medicine, VA Employee Education System, Long Beach, CA, July 20, 2007.
"Proposal Reviews." National Institutes of Health, National Center for Complementary and Alternative Medicine Special Emphasis Panel. Bethesda, MD, July 11, 2007.
"The Chiropractic Research at RAND: Evidenced Based Practice and Health Services Research." Southern California University of Health Sciences, June 26, 2007, Whittier, California.
"The Heart of Chiropractic." Convocation Speech at the Canadian Memorial Chiropractic College 15th June, 2007, Toronto Canada.
"Evaluating Integrative Medicine in the Hospital Setting." Integrative Medicine for Health Care Organizations, San Diego, California, April 12-14, 2007
"Ethical Conduct in Human Research." Samueli Institute, Alexandria, Virginia, Feb. 27-28, 2007
"Professionalism and Ethics." Research Agenda Conference, Keynote Presentation, Phoenix, Arizona, March 15-17, 2007.
"Integrative Medicine in the Hospital Setting." Research Agenda Conference, Phoenix, Arizona, March 15-17, 2007.
"Chair and Commentary: Cancer and Disease Prevention," Susan Samueli Center for Integrative Medicine, Nutrition for Health, Cancer and Disease Prevention, Irvine, CA, February 25, 2007.
"Conference Introduction" Susan Samueli Center for Integrative Medicine, Nutrition for Health, Cancer and Disease Prevention, February 24, 2007.

2006
"Chiropractic Leadership Panel." Presentation Canadian Chiropractic Conference, Vancouver, British Columbia, Canada, November 18, 2006.
"What Differences Make a Difference: The Challenge of Diversity for Chiropractic." Presentation Canadian Chiropractic Conference, Vancouver, British Columbia, Canada, November 17, 2006.
"Diversity versus Unity. Does Making Things Count Mean Making Everything Count." Keynote address, Canadian Chiropractic Conference, Vancouver, British Columbia, Canada, Nov. 16, 2006.
"Integrative Medicine" Presentation to the Board of the Susan Samueli Center for Integrative Medicine, Corona Del Mar, CA, October 8, 2006
"What Impact Does the Transition from Communist to Post-Communist Society Have on Professionalisation. The Case of Central and Eastern Europe." XVI International Sociological Association World Congress of Sociology "The Quality of Social Existence in a Globalising World," Durban, South Africa, 23-29 July 2006.
"Biomedicine and Complementary and Alternative Medicine: Integration, Cooperation or Co-optation?" Susan Samueli Center for Integrative Medicine - Colloquium Series, UC Irvine, July 6, 2006.
"Biomedicine and CAM: Cooperation, Cooptation, Integration or Clash of the Titans." Sponsored by the Susan Samueli Center for Integrative Medicine. University of California, Irvine, July 6, 2006.
"Integrative Medicine" Presentation to the HS Ventures, Corona Del Mar, CA, May 19, 2006.
"Truth, Lies and Losing Weight: When Randomized Controlled Trails are Evidence in Legal Disputes about the Benefits of Dietary Supplements and Complementary and Alternative Medicine, Is the Gold Standard All that Glitters" Paper presented at the 2006 Hawaii International Conference on Business. May 28, 2006, Honolulu, Hawaii.
"Further Discussion in the Identity of Chiropractic" Panel Chair, Association of Chiropractic Colleges/Research Agenda for Chiropractic Conference, Washington, DC, March 18, 2006.
"Logic and Evidence for the Identity of Chiropractic: Primary Care or Spine Doctor?" Panel Chair, Association of Chiropractic Colleges/Research Agenda for Chiropractic Conference, Washington, DC, March 17, 2006.

2005
"Studies of HIV: The Importance of Sampling." Canterbury Department of Public and Community Health, Christchurch, May 30, 2005.
"In Expert Panels is Talking Important?: An Empirical Study." Department of Public Health & General Practice, The Public Health and Primary Care Seminar Series 2005. Christchurch School of Medicine, University of Otago, New Zealand, May 26, 2005.
"Has the Exclusion of Chiropractic from the University been Unethical and Unjust?" Bioethics Centre, Dunedin School of Medicine, Otago University, Dunedin, New Zealand, May 1, 2005.
"Strategic Planning for CAM Research Programs." A one day workshop presented by I. Coulter sponsored by the National Health Committee, Wellington College of Homeopathy, in association with Wellington Group of Reflexology, New Zealand. Wellington, New Zealand, April 26, 2005.
"The Relationship between the Consumer and the Health Prac-

titioner." Keynote speaker for Living Well with Chronic Illness Conference. Christchurch, New Zealand, April 14, 1005.
"Mainstream, Complementary & Alternative Medicine: Can they be Integrated? Should they be Integrated?" Medical Forum Open Lecture. Bioethics Centre, Dunedin School of Medicine, Otago University, Dunedin, New Zealand, March 2, 2005.

2004
"Destigmatization and HIV: Progress or Regress?" Paper presented at the Annual Conference of the Australian Sociological Association, La Trobe University, Beechworth, Victoria, December 9, 2004.
"Health Services Research and Evidenced Based Practice. Is One Possible Without the Other?" Australiasian Cochrane Centre Monash Institute of Health Services Research, Monash Medical Centre, Clayton, Victoria, Australia, November 30, 2004.
"Crossing the Divide: A Sociological Research Program for Appropriateness of Medical Procedures." SAANZ Conference, Wellington, New Zealand, November 27, 2004.
"The Challenges of Integrative Medicine." Keynote address for Complementary and Alternative Medicines (CAM) Symposium, National Health Committee and the Ministerial Advisory Committee for Complementary and Alternative Health. Wellington, New Zealand, 11/24/04.
"What can Philosophy Contribute to an Integrative Medicine?" Department of History and Philosophy of Science, University of Melbourne, Victoria, Australia, October 19, 2004.
"The Challenges of Creating an Evidenced Based Practice Research Center for Alternative Medicine (CAM)." Chiropractic, Osteopathic College of Australia, Melbourne, Victoria, Australia, 28 July 2004.
"How Do We Plan For a Successful Research Program?" Workshop, Monash University School of Nursing Frankstone campus, Victoria, Australia, May 17, 20"Paradigms of Health Care? Conventional, Complementary, Alternative and Integrative Medicine." Paper presented at La Trobe Univ. School of Public Health, Australia, 5/12/04.

2004 (as Director, Australia Study Center, University of California Education Abroad Program)
"Going to the University of California with the Exchange Program." Presentation to:
- University of Melbourne, Melbourne, Victoria, Australia: April 19, 2004; April 20, 2004; October 19, 2004; October 20, 2004.
- Australia National University, Canberra: March 8, 2004; August 31, 2004.

"University of California Exchange Program." Presentation to:
- University of Western Australia, Perth, Western Australia: April 28, 2004; September 15, 2004.
- University of Queensland, Brisbane, Queensland, Australia: April 7, 2004; April 8, 2004; August 24, 2004; August 25, 2004.
- Flinders University, Adelaide, South Australia: March 24, 2004; August 18, 2004.

"The University of California." Presentation to:
- University of New South Wales, Sydney, NSW, Australia: March 15, 2004; March 16, 2004; September 9, 2004; September 10, 2004.
- University of Sydney, Sydney, NSW, Australia: March 17, 2004; March 18, 2004; September 6, 2004; September 7, 2004.
- University of Adelaide, Adelaide, South Australia: March 25, 2004; August 16, 2004.
- University of Wollongong, Wollongong, NSW, Australia: Aug. 4, 2004; March 10, 2004.

(as Director, Australia Study Center, University of California Education Abroad Program)
"LaTrobe/University of California Exchange Program." Presentation to:
- LaTrobe University, Melbourne, Victoria, Australia: May 5, 2004; September 20, 2004.
- LaTrobe Business/Law Faculty University, Melbourne, Victoria, Australia: May 24, 2004.

"Monash, University of California Exchange Program." Presentation to:
- Monash University, Melbourne, Victoria, Australia: April 16, 2004; May 11, 2004; September 21, 2004.

"Coming to the University of California." Presentation to:
- University of Tasmania, Hobart, Australia: July 8, 2004; September 24, 2004.

"University of California, Education Abroad, Orientation Program"
- Marine Biology Program, University of Queensland: August 23, 2004.
- James Cook University, Townsville, Queensland, Australia: February 5-6, 2004; August 15, 2004.
- University of Tasmania, Environmental Science Program University of Tasmania, Hobart: February 5-6, 2004; February 16-18, 2004.
- Australia National University, Canberra, Australian Capital Territory: February 6-8, 2004.
- Sydney, New South Wales, Australia: February 9-11, 2004.

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2003
"Evidenced Based Complementary and Alternative Medicine: What Role for Sociology." Presented at the Annual Conference of the Australian Sociological Association. University of New England, Armidale, NSW, Australia 6th December, 2003.
"How to Plan for a Successful Research Program." Workshop, Monash University School of Nursing, Monash University Peninsula campus, Frankston, Victoria, Australia, Nov. 21, 2003.
"Meeting Student Needs in Study Abroad Programs." University of California Education Abroad Program in Australia. IDP Australian International Education Conference, Melbourne Victoria, Australia, October 23, 2003.

2003 (as Director, Australia Study Center, University of California Education Abroad Program)
"Going to the University of California with the Exchange Program." Presentation to:
• University of Melbourne, Melbourne, Victoria, Australia: October 23, 2003.
"University of California Exchange Program." Presentation to:
• University of Western Australia, Perth, Western Australia: April 15, 2003; September 18, 2003.
• University of Queensland, Brisbane, Queensland, Australia: August 26, 2003; August 27, 2003.
• Flinders University, Adelaide, South Australia: October 21, 2003.
• University of Adelaide, Adelaide, South Australia: October 20, 2003.
"The University of California." Presentation to:
• University of Wollongong, Wollongong, NSW, Australia: October 16, 2003.
• University of New South Wales, Sydney, NSW, Australia: October 14, 2003;
"LaTrobe/University of California Exchange Program." Presentation to:
• LaTrobe University, Melbourne, Victoria, Australia: October 8, 2003.
• LaTrobe University, Bendigo Campus, Bendigo, Victoria, Australia: March 13, 2003.
(as Director, Australia Study Center, University of California Education Abroad Program)
"Monash, University of California Exchange Program." Presentation to:
• Monash University, Melbourne, Victoria, Australia: May 29, 2003; September 24, 2003.
"Coming to the University of California." Presentation to:
• University of Tasmania, Hobart, Australia: September 11, 2003.
• University of Melbourne, Melbourne, Victoria, Australia: May 19 and 20, 2003.
"University of California, Education Abroad, Orientation Program"
• James Cook University, Townsville, Queensland, Australia: July 18, 2003.
• University of Tasmania, Environmental Science Program University of Tasmania, Hobart: July 7, 2003.
• Australia National University, Canberra, Australian Capital Territory: February 14-17, 2003.
• Sydney, New South Wales, Australia: February 10-14, 2003.

2002
"How Do We Plan for a Successful Research Program in Family Medicine?" Workshop for UCLA Department of Family Medicine. November 25, 2002.
Facilitator for "Integrative Health Care Workshop." Sponsored by the Canadian Integrative Health Care Network. Toronto, Canada, November 17-18, 2002.
"Researching the Barriers to Integrative Medicine." UCLA Center for East-West Medicine, Los Angeles, CA, November 22, 2002.
"The Challenges of Conducting Evidence-based Reports for Complementary and Alternative Medicine." British Chiropratic Association, Glasgow, October 12, 2002. (Invited)
"The Challenges of Conducting Evidence Based Reports on Complementary and Alternative Medicine." The British Chiropractic Association in association with The Scottish Chiropractic Association Autumn Conference 2002 and Annual General Meeting. Glasgow, Scotland, October 5, 2002.
"Integrative Medicine: What Can it Mean?" First Annual Integrative Medicine Symposium: Research, Training, and Clinical Perspectives. Organized by the UCLA Center for Integrative Medicine and its affiliates. Univ. of California, Los Angeles, Sept. 27, 2002.
"From Epidemic to Chronic Illness: The Transformation of HIV." International Sociological) Association Conference. Brisbane, Australia, July 10, 2002.
"Integrative Medicine and Biomedicine: Paradigm Shift or Paradigm Clash." International Sociological Association Conference. Brisbane, Australia, July 9, 2002.
"Evidenced-based practice for CAM: Can systematic reviews provide the evidence?" International Society of Technology Assessment in Health Care (ISTAHC). Oral session 'XVII—HTA of complementary and alternative medicine. Berlin, Germany. June 11, 2002.
"What are Relevant Social and Cultural Issues in Chiropractic Primary Care." American Academy of Chiropractic Physicians,

Vitalism Faculty: Biographies and Curriculum Vitae

Chicago, May 17, 2002.
"Ethics and the Philosophy of Chiropractic." Research Agenda for Chiropractic Conference (HRSA). New Orleans, LA, March 16, 2002.
"Challenges of Diversity. What Difference Makes a Difference." Research Agenda for Chiropractic Conference (HRSA). New Orleans, LA, March 15, 2002.
"Best Case Series for Immuno-Augmentation Therapy and Naltrexone for the Treatment of Cancer." Cancer Advisory Panel for Complementary and Alternative Medicine (CAPCAM) Presentation, February 22, 2002.
"Training of CAM Researchers." Model Curricula for Preparing CAM Educators and Researchers. Florida State University Complementary and Alternative Medicine Retreat, Tallahassee, FL. January 16, 2002.
"UCLA/RAND—CAM Evidence-Based Practice, Systematic Literature Reviews." Trends in CAM Research in the Social and Behavioral Sciences. Florida State University Complementary and Alternative Medicine Retreat, Tallahassee, FL. Jan. 16, 2002.

2001
"Evidenced Based Practice and Complementary and Alternative Medicine. Can We Get There from Here?" Presentation to the CEOs of RAND, Santa Monica, CA. November 27, 2001.
"NIH Consensus Conference on Caries: The Good, the Bad and the Ugly." UCLA Dental Research Institute and UCLA/King Drew RRCMOH Seminar. November 11, 2001.
"New Research on CAM Approaches." Comprehensive Cancer Care 2001. Integrating Complementary & Alternative Therapies. The Center for Mind-Body Medicine and The University of Texas Medical School at Houston, Arlington, VA, October 19, 2001.
"Chiropractic Philosophy: An Emperor Without Clothes?" British Chiropractic Association Annual Conference. Nottingham, England, October 5, 2001. (Invited)
"NIH Consensus Conference on Caries: The Good, The Bad, and the Ugly." University of Dundee Dental Health Services Research Unit. Dundee, Scotland, October 2, 2001 (Invited).
"Evidenced Based Practice For Complementary and Alternative Medicine." University of Otago, Department of Community Medicine, Christchurch, New Zealand, Sept 6, 2002 (Invited).
"Evidence-Based Chiropractic Practice." Research Agenda Conference VI: Advancing the Science of Chiropractic. U.S. Health Resources and Services Administration, Bureau of Health Professions and the Consortial Center for Chiropractic Research. Kansas City, MO, July 28, 2001. (Invited)
"Ethical Conduct in Human Research." Workshop. Research Agenda Conference VI: Advancing the Science of Chiropractic. U.S. Health Resources and Services Administration, Bureau of Health Professions and the Consortial Center for Chiropractic Research. Kansas City, MO, July 27, 2001. (Invited)
"Do We Need a Chiropractic Philosophy." Palmer College of Chiropractic, Lyceum. San Jose, CA, May 5, 2001. (Invited)
"RAND Study of CAM Treatment for Cancer." The Advisory Council for the National Institutes of Health, National Center for Complementary and Alternative Medicine (NCCAM). Bethesda, Maryland, May 31, 2001. (Invited)
"RAND Best Case Series for CAM Treatment of Cancer." NIH, Cancer Advisory Panel for
Complementary and Alternative Medicine (CAPCAM). Bethesda, Maryland, May 21, 2001.

2000
"Fee-for-service versus capitated dental health plans: Do plan enrollees rate them differently?" 128th American Public Health Association Annual Meeting and Exposition. Boston, MA, November 14, 2000.
"The Roles of Philosophy and Belief Systems in Complementary Health Care." A Conference on Philosophy in Chiropractic Education. World Federation of Chiropractic in conjunction with the Association of Chiropractic Colleges and with the sponsorship of the National Board of Chiropractic Examiners. Fort Lauderdale, Florida, November 11, 2000.
"The RAND Chiropractic Research Program." British Chiropractic Association, Birmingham, England, October 7, 2000. (Invited)
"Integrative Medicine; The Challenge to Medicine." British Chiropractic Association, Birmingham, England, October 7, 2000. (Invited)
"A Systematic Approach to Identifying Case Series of Promising CAM Therapies for the Treatment of Cancer." 3rd Meeting of the Cancer Advisory Panel for Complementary and Alternative Medicine, Dept. of Health & Human Services, National Institutes of Health & the National Center for Complementary & Alternative Medicine. Bethesda, MD, Sept. 18, 2000.
"Qualitative Approaches to Chiropractic. The View from the Ground." Presentation in plenary session: Qualitative Research Methods: How do They Fit?" Moderator of session. 5th Chiropractic Research Agenda Conference: Integrating Chiropractic Theory, Evidence, and Practice. Chicago, Illinois, July 21-23, 2000. (Invited)
Discussant in session: "Modeling Chiropractic Concepts: Health - Subluxation - Adjustment." 5th Chiropractic Research Agenda Conference: Integrating Chiropractic Theory, Evidence, and Practice. Chicago, Illinois, July 21-23, 2000. (Invited)
"A Grounded Approach to Chiropractic: The Importance of

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Qualitative Research." 5th Chiropractic Research Agenda Conference: Integrating Chiropractic Theory, Evidence, and Practice. Chicago, Illinois, July 21-23, 2000. (Invited)
"The impact of discussion on consensus panel ratings." Interactive session: How to measure the appropriateness of Care? The 16th Annual Meeting of the International Society of Technology Assessment in Health Care. The Hague, The Netherlands, June 20, 2000.
"The RAND Studies of the Appropriateness of Spinal Manipulation for Low Back Pain and the Cervical Spine." Institute of Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense, Denmark. June 9, 2000. (Invited)
"The Horizons of Complementary and Alternative Health Care." Closing Keynote speaker, 1st National Symposium on Complementary & Alternative Geriatric Health Care and 19th Annual Geriatric Research Education & Clinical Center (GRECC) Symposium. Jointly sponsored by St. Louis VA Geriatric Research Education and Clinical Center and St. Louis University School of Medicine. Logan College of Chiropractic, Chesterfield, MO, April 30, 2000. (Invited)
"Behavior of Enrollees in Capitated and Fee-for-Service Dental Benefit Plans." American Dental Association Economics Advisory Group, Chicago. March 2-3, 2000. (Invited)

1999
"Nurse Practitioners and Physician Assistants: Complements or Substitutes." University of
Victoria, Health Services Research Center, Wellington, New Zealand, November 19, 1999.
"Nurse Practitioners and Physician Assistants: Complements or Substitutes." University of Otago, Department of Public Health, Seminar, Christchurch, New Zealand, November 18, 1999. (Invited)
"The RAND Chiropractic Research Program." York University Faculty Colloquium, Toronto, Canada, October 29, 1999. (Invited)
"Managed Care in Dental Markets: Is the Experience of Medicine Relevant?" Presentation to the American Association of Public Health Dentistry. Hawaii, October 10, 1999.
"Minority Research Cultures: A Model for Chiropractic." National Workshop to Develop the Chiropractic Research Agenda U.S. Department of Health and Human Services, Health Resources and Services Administration, Chicago., July 23 - 24, 1999. (Invited)
"Nurse Practitioners and Physician Assistants: Complements or Substitutes to Medical Care. The View of the Participants." Presentation at the Association of Health Services Research conference, Chicago June 27-29, 1999.
"Integrative Medicine. A Paradigm Shift Within Biomedicine." Presentation at University of Bridgeport, Connecticut, Center for Values and Ethics, May 24th, 1999. (Invited)
"Use of Dental Care by HIV Infected Medical Patients." Presentation to UCLA Dental Research Institute and the UCLA/King Drew Regional Research Center for Minority Oral Health. June 8, 1999. (Invited)
"Dental Insurance - What Impact Does it Have on the Dentists and Patients." Presentation to USC School of Policy, Planning and Development Residency Seminar at RAND, Santa Monica, April 13, 1999. (Invited)
"Evidence for Chiropractic Care." Presentation to Physicians Seminar, Cedars Sinai Medical Center, Los Angeles, CA, January 6, 1999. (Invited)

1998
"Creating Productive Research Centers." Presentation to the Health Services Research Center, Wellington, New Zealand, December 2, 1998. (Invited)
"Review of Research in Chiropractic and the Elderly." Presentation at American Public Health Association meeting, Washington, D.C., November 16, 1998. (Invited)
"Tiptoeing Through the tulips of Chiropractic Research. A Twenty Year Odyssey." Paper presented to the Consortium of Canadian Chiropractic Research Centers, University of Calgary, Alberta, Canada, November 14, 1998. (Invited)
"The Increasing Role of Scientific Knowledge in the Mainstreaming of Manipulation: The Case of chiropractic." Presentation to the Society for the Social Study of Science, Halifax, Canada, October 30, 1998.
"Chiropractic Patients in North America." Research Conference, Los Angeles College of Chiropractic, Los Angeles, October 8, 1998. (Invited)
"Use of Chiropractic Services in North America: An Empirical Analysis." International Conference on Spinal Manipulation. Vancouver, Canada, July 17-18, 1998.
"Professionalism of Medicine Under New Forms of Care Delivery." Workshop Facilitator, School of Medicine, University of Newcastle, June 2, 1998. (Invited)
"Use of Dental Care by HIV Infected Medical Patients." International Association for Dental Research, Nice, France, June 24-27, 1998.
"Creating Research Cultures" National Workshop to Develop the Chiropractic Research Agenda" U.S. Department of Health and Human Services, Health Resources and Services Administration, Washington, D.C., June 19-21, 1998. (Invited)
"Chiropractic Care-What Is The Evidence?" Presentation to the American College of Physicians, Los Angeles, February 20, 1998. (Invited)

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1997
"The RAND Consensus Method: Promises and Problems." University of Auckland, Medical School, Department Community Health, Auckland, New Zealand, October 1997. (Invited)
"The RAND Consensus Method: Promises and Problems." University of Otago Medical School, Community Health Program, Christchurch, New Zealand, October 1997. (Invited)
"Managed Care: Hit and Myth." Department of Sociology, University of Canterbury, Christchurch, New Zealand, October 1997. (Invited)
"Consistency Across Panels of Ratings of Appropriateness of Dental Care Procedures." Australian Public Health Conference, Rights to Health, Melbourne, Australia, Oct. 8, 1997.
"Strategic Planning For Research." Presentation to Faculty Retreat, School of Dentistry, Lake Arrowhead, California, September 10, 1997 (Invited).
"Introduction to Chiropractic Research." Orientation Speech to incoming students at the Los Angeles College of Chiropractic, August 25, 1997. (Invited)
"Impact of Discussion on Consensus Panel Ratings." Presentation at the 14th Annual Meeting of the Association for Health Services Research, *Issues and Answers for Improving Health in the 21st Century,* Chicago, IL, June 15-17, 1997.
"Chiropractic Research at RAND." Keynote Speaker at the California Chiropractic Association's Legislative Conference, Sacramento May 12, 1997 (Invited)
"The Transformation of HIV from Epidemic to Chronic illness: Physician Responses." Presentation to the Society for Applied Anthropology, Seattle, Washington, March 8, 1997.
"What Chiropractic Research Really Says and How Best Should the Profession Use It." Presentation to the American Chiropractic Association Board of Governors, San Diego, California, January 10, 1997 (Invited)

1996
"Chiropractic Research of Low Back Pain." Visiting Scholars Address, Los Angeles College of Chiropractic, Whittier, California, November 8, 1996 (Invited).
"A Comparative Study of Chiropractic and Medical Education." Paper presented at the International Conference on Spinal Manipulation, Bournemouth, England, October 19, 1996.
"Paradigms and Thomas Kuhn." Presentation to the Graduate School of Nursing, UCLA, Philosophical Foundation of Nursing Science, Los Angeles, CA, October *15,* 1996 (Invited).
"Social Science Theory and Policy Analysis." Presentation to the RAND Graduate School, Santa Monica, CA, September 27, 1996 (Invited).
"Appropriateness Studies of Chiropractic." Paper presentation to University of California, Irvine/Los Angeles College of Chiropractic conference, The Study of Complementary Health Care, Los Angeles, August 10, 1996.
"The Cervical Spine: Practical Applications of New Developments." 10th Annual Conference on Research and Education (CORE) by the Consortium for Chiropractic Research, Las Vegas, June 15, 1996 (Invited).

1995
"A Medical Sociological Approach to Research". Presentation to the faculty of dentistry, UCLA, Los Angeles, December 11, 1995 (Invited).
"The Development of Health Related Quality of Life Measures at RAND." A National
Invitational Symposium on Outcomes Measurement in the Human Services. Center for the
Study of Social Work Practice. Columbia University, New York, Nov. 9-10, 1995 (Invited)
"Workshop on Qualitative Methods." A National workshop with invited speakers held at RAND. Chaired the panel of discussants and was co-organizer of the workshop. Santa Monica, California, September 29, 1995.
"Chiropractic Research at RAND." Presentation to National Chiropractic Mutual Insurance Corp., Washington, DC, July 6, 1995 (Invited)"Chiropractic Adherence Study." Presentation to the Consortium of Chiropractic Research, Las Vegas, February 9, 1995 (Invited).

1994
"Theory Development in the Social Sciences." Center for the Study of Provider Behavior, VA Medical Center, West Los Angeles, December 1994 (Invited)
"Do Chiropractic Patients Do What the Chiropractor Recommends." Presentation to the Los Angeles College of Chiropractic Homecoming Seminar, November 5, 1994 (Invited)
"Use and Abuse of Theory in Health Services Research." Center for the Study of Provider Behavior, VA Medical Center, West Los Angeles, November 2, 1994 (Invited)
"Manipulation and Mobilization of the Cervical Spine." Paper presented to the Physical Medicine Research Foundation International Symposium on Whiplash Associated Disorder, Banff, Alberta, Canada, October 25, 1994.
"Do Chiropractors Provide Preventive Health Care and Health Promotion: Evidence From Los Angeles." American Sociological Association Meeting, Los Angeles, August 5, 1994.
"Chiropractic As Primary Care" Presentation to the International Conference on Spinal Manipulation, Palm Springs, June 11, 1994.

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1993
"The RAND National Study on Chiropractic Utilization." Presentation to the Florida Chiropractic Association Convention, Fort Lauderdale, Florida, December 4, 1993 (Invited)
"How to Think About Health Policy Issues: 'A Framework." Workshop presented at American Public Health Association meeting, San Francisco, October 24-28, 1993 (Invited)
"Use and Abuse of Philosophy in Chiropractic." Presentation to students at the Canadian Memorial Chiropractic College, Toronto, Canada, October 14, 1993. (Invited)
"Chiropractic Research at RAND." Presentation to students at the Cleveland Chiropractic College, Research Methods Course, Los Angeles, October 6, 1993 (Invited)
"The UCLA/Drew University Minority Oral Health Research Center. Facing the Minority Challenge." Presentation to the UCLA, School of Dentistry Board of Counselors, Los Angeles, March 23, 1993 (Invited)
"Chiropractors Role In the Care of Back Pain Patients." Presentation to the Medical Staff, Orthopaedic Hospital Spine Center, USC, Los Angeles, Jan. 21, 1993 (Invited)

1992
"Measuring Health in Research. Problems and Promises." Presentation to the Center for Dental Health Policy and the UCLA/ Drew University Minority Oral Health Research Center, Los Angeles, December 9, 1992 (Invited)
"Workshop on Health Issue Analysis." One day workshop to the Executives of the California Chiropractic Association, Los Angeles, July 29, 1992 (Invited)
"Concepts of the Quality of Care. Where Is The State of the Art?" Quality Assurance Workshop for California Knox-Keene Dental Plans, UCLA School of Dentistry Continuing Education Program for Knox-Keene Plan Evaluators, Los Angeles, May 2-3, 1992 (Invited).

1991
"Assessing the Quality of Chiropractic Care in the Twenty First Century." Workshop presented to the British Columbian College of Chiropractic Conference, Victoria, Canada Oct. 28, 1991 (Invited).
"Philosophy and Chiropractic." Presentation of three papers to the Symposium on Philosophy of the Chiropractic Association of Australia, Alice Springs, Australia, September 28-30, 1991 (Invited).
"Consensus. Too Much of A Good Thing." Presentation to the Second Consensus Conference on the Validation of Chiropractic Methods held by the Consortium on Chiropractic Research and the California Chiropractic Association, Monterey, California, June 21,1991 (Invited).
"Quality Standards of Care. Assessing the Quality of Chiropractic Care." Workshop presented at the Alabama State Chiropractic Association Convention, *America Needs a Second Opinion,* Birmingham, Alabama, June 8, 1991 (Invited).
"The Significance of Health Research at RAND." Presentation to the annual meeting of Members of the Legislative Assembly of Alberta, Edmonton, Canada, May 14, 1991 (Invited).
"Health Policy Research at RAND." Presentation to Caldwell Partners International Health Seminar for Health Care Executives, Toronto, Canada, February 28, 1991 (Invited).

1990
"A Reasoned Approach to the Evaluation of Chiropractic Technique." Presentation at the *Consensus Conference on Validation of Chiropractic Methods,* held by the Consortium on Chiropractic Research and the California Chiropractic Association, Seattle, Washington, April 3, 1990 (Invited).

Committees
National Committees
Member of the Planning Committee for "A National Workshop to Develop the Chiropractic Research Agenda" funded by the U.S. Department of Health and Human Services, HRSA. (Contract #103HR951053P000-000); 1996, 1997, 1998, 1999, 2000, 2001, 2002.
Member of the Advisory Committee "Chiropractic Geriatric Education" funded by HRSA. (Contract #204-95-0036); 1995 to 1/2003.
Member, Research and Review Committee, Office of Research, Policy and Information Services for the American Chiropractic Association; 1996 to 1/2003.
Member of the Advisory Board for the Graduate Program "Enhancement of the Gerontology Advanced Nursing Program" Funded by Department of Health and Human Services, Division of Nursing, 1997 to 1/2003.
Member of the Advisory Committee for the National Institutes of Health, Office of Alternative/ Complementary Medicine, Consortium Center for Chiropractic Research, 1997-1/2003.
Member of the NIH /NCCAM Cancer Advisory Panel, Office of Alternative Medicine, 1998-2002.
NIH Expert Panel for the Consensus Development Conference on the Diagnosis and Management of Caries. Bethesda, MD, May 2001.Member of the Advisory Council for the Center for Mind-Body Medicine's fifth conference: Comprehensive Cancer Care 2003. 2002-1/2003.
Scientific Reviewer, NIH, NCCAM, Special select clinical applications (R21s), July 11th , 2007, Bethesda, MD.

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State Committees
Member of the Children's Dental Health Initiative Advisory Committee, the Dental Health Foundation, Sacramento, 1997 to 1/2003

University of California
Member UC Health Sciences Institute Planning Group, 2002-2002
Member Committee on Copyright, 2002
Member UC Committee on Academic Freedom, 2000-2001 (Chair 2002)
Member UC Committee on Education Abroad, 2006-2007
Member UC Irvine, Susan Samueli Center for Integrative Medicine: *Nutrition for Health.* 2006-present
Member UC Committee on International Education, 2007-present
Member UC Strategic Planning Committee for Education Abroad, 2008
Member UC Subcommittee on Advancing and Rewarding Teaching in the Health Professions, 2008-present

UCLA General Campus
Member of the Academic Senate, UCLA 1998-2001
Senate Committee on Academic Freedom, 2000-2002
Chairperson, Committee on Academic Freedom 2001-2002
Chair, Committee on Education Abroad (Senate Committee), 2006-2007
Chair, Committee on International Education (Senate Committee), 2007-present
Chancellor's Associate 2005-present
Member Steering Committee, UCLA Collaborative Centers for Integrative Medicine, 2007-present
Senate Ad Hoc Review and Appraisal Committee 2008

UCLA Health Science Center
Member, Advisory Committee for the UCLA Clinical Scholars Program, Faculty of Medicine (Department of Internal Medicine), funded by the Robert Wood Johnson Foundation, 1997-1/2003
Member, UCLA Clinical Scholars Social Science Subcommittee, Faculty of Medicine (Department of Internal Medicine), funded by the Robert Wood Johnson Foundation, 1997-1/2003

UCLA School of Dentistry
Accreditation Steering Committee, 1995-1997
Research Accreditation Committee, 1995-1997
Design Team for Strategic Planning, 1995-1997
Leaders Team for Strategic Planning, 1995-1997
Resource Planning Committee, 1995-1997
Research Advisory Committee, 1996-2002 (Chair 1997-98)
Sub-Committee on Geriatric Education (Chair), 1997-1998
Sub-Committee on Clinical Education, 1997-1999
Member, Information Technology Steering Committee, 1997-1998
Co-Vice Chair for the Sub-Committee on Research Computing, 1997-1998
Ad-hoc Committee for Practice Management, 1998-2002
Curriculum Committee, 1997-1999 (Chair 1998-1999); 2007-present
Legislative Assembly Representative for the School of Dentistry, 1998-2002
Outcomes Committee, 1999–2001; Comprehensive Exam Subcommittee, 2007 to present
Ad Hoc interviewer for School of Dentistry
Member of the Apollonians 2002-present
Class of 2004 applicants, Class of 2005 applicants, 2000; Class of 2005 applicants
Member, MILA Committee, 2001-2002
Member, Ad hoc Committee, Prepare guidelines for admission and the curriculum for combined DDS and PhD program, 2002
Growth and Development Sub-Committee of the Academic Reform Committee, 2006 to present

Community Service
Venice Family Clinic Research Advisory Committee 1996-1/2003
Venice Family Clinic Evaluation of Research Sub-Committee 1996-1/2003
Venice Family Clinic Strategic Planning Committee, 1996-2000
Castellemmare Mesa Homeowners Association: Board Member, 1994–2000; Vice President, 1999; President, 2000; Board Getty liaison 2001-2002.
Review Committee Member for the American Specialty Health Scholarship Program 2002-2007.
Provider network in the specialties of chiropractic, acupuncture, massage therapy, dietetics, and naturopathy
Board of Directors of the Dental Health Foundation for California, appointed 2008

Professional Memberships
Current
Academy for Health Services Research and Health Policy
American Association of Public Health Dentistry
American College for Advancement in Medicine (ACAM) Board
American Dental Education Association
American Public Health Association
American Sociological Association

Appendix

Association for Health Services Research
Dental Health Foundation Board
International/American Association for Dental Research
International Society for Quality of Life Research
International Association for the Assessment of Medical Technology
International Sociological Association

Past
Canadian Council on Chiropractic Accreditation, 1981-1991
American Council on Chiropractic Education, 1981-1991
Association of Chiropractic Colleges (US), 1981-1991

Journal / Book Reviewer
Alternative Therapies in Health Medicine
American Journal of Public Health
American Specialty Health
Annals of Internal Medicine
British Medical Journal
Canadian Medical Association Journal
Community Dental Health
eCam
European Journal of Clinical Nutrition
Health Sociology Review
Journal of the American of Public Health
Journal of the Canadian Chiropractic Association
Journal of Chiropractic History
Journal of Chiropractic & Osteopathy
Journal of Clinical Epidemiology
Journal of Dental Education
Journal of Epidemiology and Community Health
Journal of General Internal Medicine
Forschende Komplementärmedizin
Journal of Health Politics, Policy and Law
Journal of Health and Social Behavior
Journal of Manipulative and Physiologic Therapeutics
Journal of the Neuromusculoskeletal System
Journal of Public Health Dentistry
Journal of Topics in Clinical Chiropractic
Libertas Academica
Medical Care
Medical Science Monitor
PLoS Clinical Trials
Quality of Life Research
The Milbank Quarterly
Social Science and Medicine
Western Journal of Medicine
Book reviewer for *Butterworth Heinmann*

Editorial Board
International Journal of Self Help & Self Care, 2008-present
Integrative Cancer Therapies 2008- present
Integrative Medicine Insights, 2006-present
Chiropractic and Osteopathy, 2006-present
Journal Health Sociology Review, 2003-present
Journal of Evidenced-Based Dental Practice, 2001-2006
Alternative Therapies in Health and Medicine, 2001-2006
The Spine Journal, 2001-2005
Complementary Health Practice Review, 2001-2005
Western J Medicine, Hanging Committee 1999–2004

Consultancies Held
Canterbury Woman's Medical Association, New Zealand
Canadian Chiropractic Association
Ontario Board of Directors of Chiropractic, Canada
College of Chiropractors of Alberta, Canada
British Columbian Chiropractic Association, Canada
California Chiropractic Association, USA
RAND, Santa Monica California
University of California, Los Angeles
Hawaii State Chiropractic Association
Los Angeles College of Chiropractic

Publications
Coulter ID, Nathan S. An Upper Tertiary Nautiloid from the Little Totara River, Buller County. *Trans Royal Society of New Zealand* 7:49-53, 1969.
Coulter ID. Geriatrics and the General Acute Hospital. *New Zealand Medical J.* 75:10-15, 1972.
Coulter ID, Delgrande JP. The Canadian Chiropractic Examination Board Results: A Statistical Evaluation. *J Canadian Chiropractic Assoc* 23: 143-49, 1979.
Coulter ID. The Chiropractic Curriculum: A Problem of Integration. *J Manipulative Physiol Ther* 4:143-54, 1981.
Coulter ID. Chiropractic Observed: Thirty Years of Changing Sociological Perspective. *Chiro Hist* 3:43-47, 1983.
Coulter ID. Chiropractic and Medical Education: A Contrast in Models of Health and Education. *J Canadian Chiropractic Assoc* 27:151-58, 1983.
Coulter ID. The Chiropractic Patient: A Social Profile. *J Canadian Chiropractic Assoc 29:25-28,* 1985.
Coulter ID. The Role of the Entrepreneur in Postgraduate Education. *J Canadian Chiropractic Assoc* 29:121-23, 1985.
Coulter ID. Chiropractic Physicians for the Twenty First Century? *J Canadian Chiropractic Assoc* 30:127-31, 1986.

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Coulter ID. Professional Graduate Studies in Chiropractic. *J Canadian Chiropractic Assoc* 30:177-81, 1986.
Coulter ID. Chiropractic Utilization: A Statistical Analysis. *Am J Chiro Med* 2:13-21, 1989.
Coulter ID. The Chiropractic Wars or the Enemy Within. *Am J Chiro Med* 2:64-66, 1989.
Coulter ID. The Patient, The Practitioner, and Wellness: Paradigm Lost, Paradigm Gained. *J Manipulative Physiol Ther* 13:107-110, 1990.
Coulter ID. The Chiropractic Paradigm. *J Manipulative Physiol Ther* 13:279-87, 1990.
Coulter ID. A "Reasoned" Approach to the Validation of Chiropractic Methods. *Chiropractic Technique* 2:98-102, 1990.
Coulter ID. Of Clouds and Clocks and Chiropractors. Towards a Theory of Irrationality. *Am J Chiro Med* 3:84-92, 1990.
Coulter ID. Sociological Studies of the Role of the Chiropractor. An Exercise in Ideological Hegemony? *J Manipulative Physiol Ther* 14(1):51-58, 1991.
Coulter ID. Philosophy of Science and Chiropractic Research. *J Manipulative Physiol Ther* 14:269-71, 1991.
Coulter ID. Chiropractic Philosophy Has No Future. *Chiropractic J Australia* 21:129-31, 1991.
Coulter ID. Sociology and Philosophy of Chiropractic. *Chiropractic J Australia* 21(4):149-52, 1991.
Coulter ID. An Institutional Philosophy of Chiropractic. *Chiropractic J Australia* 21:136-41, 1991.
Coulter ID. Is Chiropractic Care Primary Health Care? *J Canadian Chiropractic Assoc* 36:96-101, 1992.
Coulter ID. Consensus. Too Much of a Good Thing. *Chiropractic Technique* 4:19-20, 1992.
Coulter ID. Uses and Abuses of Philosophy in Chiropractic. *Philosophical Constructs for the Chiropractic Profession The National College of Chiropractic* 2:3-7, 1992.
Coulter ID. A Defense of Thomas Kuhn (And Chiropractic). *J Manipulative Physiol Ther* 15:392-401, 1992.
Coulter ID, Adams A. Consensus Methods, Clinical Guidelines, and the RAND Study of Chiropractic. *Am Chiro Assoc J of Chiropractic* 52-60, Dec. 1992.
Coulter ID. Metaphysics, rationality and science. *J Manipulative Physiol Ther* 16(5):319-326, 1993.
Coulter ID. Alternative Philosophical and Investigatory Paradigms For Chiropractic. *J Manipulative Physiol Ther* 16:419-425, 1993.
Coulter ID. United States Department of Veterans Affairs Chiropractic Services Pilot Program Evaluation Study SDR #86-09: A Critique. *J Manipulative Physiol Ther* 16:375-383, 1993.
Coulter ID. A Wellness System: The Challenge for Health Professionals. *J Canadian Chiropractic Assoc* 37(2):92-103, 1993.
Coulter ID. The Physician, the Patient, and the Person: The Humanistic Challenge. J *Chiropractic Humanities* 1:9-20, 1993.
Kravitz R, Kahn J, Jacobson PD, Meredith L, **Coulter ID**, Tonesk X, Garber S, Shekelle P, Bozzette S. The roles of physicians in the twenty-first century: A research agenda. RAND, P-7848, 1993.
Coulter ID, Marcus M, Atchison KA. Measuring Oral Health Status: Theoretical and Methodological Challenges. *Soc Sci Med,* 38, 11:1531-1541, 1994.
Coulter ID. Conflict between the health professions. *ACA Journal of Chiropractic* 4:21-26, 1994.
Coulter ID, Hays RD, Danielson CD. The Chiropractic Satisfaction Questionnaire. *Topics in Clinical Chiropractic,* 1:40-43, 1994.
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HIV Patients in the United States. 7th Annual Conference of the International Society for Quality of Life Research, Oct. 29-31, 2000, Vancouver, Canada. *Quality of Life Research* 9(3):330, Abst No. 1377, 2000.

Katrova LG, **Coulter ID**, Freed JR. Legal, Ethical and Professional Aspects of Informed Consent in Dentistry. Association for Dental Education in Europe, XXVI Annual Meeting, Stockholm, Sweden. September 7-9, 2000.

Hernandez JB, **Coulter I**, Goldman D, Freed J, Marcus M. Managed Care in Dental Markets: Is the Experience of Medicine Relevant? AAPHD 62nd Annual Session Abstracts *J of Public Health Dentistry* 60(2):103, Spring 2000.

Coulter I. The Impact of Discussion on Consensus Panel Ratings. Book of Abstracts of the 16th Annual Meeting of the International Society of Technology Assessment in Health Care, page 24. The Hague, The Netherlands, June 18-21, 2000.

Marcus M, Freed JR, **Coulter I**, Brown J, Guzman-Becerra N, Der-Martirosian C, Goldman D. Predictors of Perceived Oral Health Status Among Users of Dental Plans in 8 Large American Corporations. *J Dental Research*, 79(IADR Abstracts):288, Abst. No. 1155, 2000.

Freed JR, Marcus M, **Coulter ID**, Brown J, Guzman-Becerra, Der-Martirosian C, Goldman D. Use of Dental Plans in 1997 by Enrollees in 8 Large American Corporations. *Journal of Dental Research*, 79(IADR Abstracts):552, Abst. No. 3265, 2000.

Coulter I, Jacobson P, Parker L. Nurse Practitioners and Physician Assistants: Complements or Substitutes for Medical Care. The View of the Participants. Abstracts, 16th Annual Meeting AHSR, Chicago June 27-29th 1999 pp 405.

Cunningham W, Heslin K, Marcus M, **Coulter I**, Freed J, Der-Martirosian C, Bozzette S, Shapiro M, Morton S, Andersen R. A Comparison of Unmet Needs for Dental and Medical Care Among Patients with HIV. Abstracts, 16th Annual Meeting AHSR, Chicago June 27-29th 1999 pp 157.

Marcus M, Freed J, **Coulter I**, Der-Martirosian C, Cunningham W, Andersen R, Schneider D, Garcia I, Maas W, et al. Prevalence and Perception of Two Oral Symptoms in a National Sample of Medical HIV Patients. *J Dent Res* 78(Spec Iss):406, Abst. No. 2401, 1999.

Coulter I. Review of Research in Chiropractic and the Elderly. Abstracts, American Public Health Association Annual Meeting, November 15-18:48, Washington, D.C. 1998.

Coulter I, Hurwitz E, Genovese B, Shekelle P. Health Services Research on Alternative Medicine: The Challenges. Round Table presentation on alternative health care, American Sociological Association Conference, San Francisco, 23 August, 1998.

Coulter ID, Hurwitz EL, Adams AH, Genovese BJ, Hays RD, Louie R, Shekelle PS. Use of Chiropractic Services in North America: An Empirical Analysis. Proceedings of the 1998 the International Conference on Spinal Manipulation. July 16-19, Vancouver, BC, Canada, 1998:136-138.

Danielson C, **Coulter I,** Hsieh J, Dagenals S. Changes in Establishment of Chiropractic and Other Health Care Professions. Proceedings of the 1998 International Conference on Spinal Manipulation. July 16-19 Vancouver, BC, Canada, 1998: 225-227.

Coulter I, Marcus M, Freed J, Der-Martirosian C, Cunningham W, Andersen R, Maas W, Garcia I, Schneider D, Genovese B, Shapiro M, Bozette.S, Shapiro M, Shapiro M, Use of Dental Care By HIV Medical Patients. *Journal of Dental Research* 77:(Special Issue B):781, Abstracts of Papers, June 24-27, 1998, Nice, France.

Marcus M, Freed J**, Coulter I**, Der-Martirosian C, Cunningham W, Andersen R, Maas W, Garcia I, Schneider D, Genovese B, Bozette S, Shapiro M. Unmet Need for Oral Treatment Among HIV Positive Medical Patients. *Journal of Dental Research* 77(Special Issue B):781, Abstracts of Papers, June 24-27, 1998, Nice, France.

Coulter I, Marcus M, Freed J. Consistency Across Panels of Ratings of Appropriateness of Dental Care Procedures Proceedings for Australian Public Health Association Annual Meeting, Rights to Health, Melbourne October 5-8, 1997:177.

Coulter I, Maida C, Wellenkamp J, Gifford A. The Transformation of HIV From Epidemic to Chronic Illness: Physician Responses. Public Health Association of Australia Conference, Mini Posters, October 5-8, 1997.

Spolsky V, Marcus M, **Coulter I**, Atchison K. Comparing Immigrant Hispanic Groups By Using the OHSI. *Journal of Dental Research* 77(Special Issue B):830, Abstracts of Papers, June 24-27, 1998, Nice, France.

Coulter I, Hunt D, Shekelle P. Impact of Discussion on Consensus Panel Ratings. Proceedings of the Association for Health Services 14th the Annual Meeting, Issues and Answers for Improving Health in the 21st Century, June 15-17, Chicago, 1997.

Hewlett ER, Black E, **Coulter I**, McQuirter J, Kington R. Oral Health Status in a Population of African-American Elderly. *J Dent Res* 76 (IADR Abstracts):207, Abst. No. 1551, 1997.

Coulter I, Maida C, Wellenkamp J, Gifford A. HIV From Epidemic to Chronic Illness: Physician Responses. Proceedings for the Society for Applied Anthropology, Annual Meeting, Seattle, 1997.

Coulter I, Hurwitz E, Genovese B, Adams A, Mior S, Brook R. Evaluating the Use of Chiropractic Spinal Manipulation for Low Back Pain. Proceedings of the 1996 International Conference on Spinal Manipulation, Bournemouth, England. Published by the Foundation for Chiropractic Education and Research, 1996:27.

Hurwitz E, **Coulter I,** Adams A, Genovese B, Shekelle P. Utilization of Chiropractic Services in the United States and Canada. Proceedings of the 1996 International Conference on Spinal

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Manipulation, Bournemouth, England. Published by the Foundation for Chiropractic Education and Research, 1996:60.
Coulter I, Adams A, Coggan P, Wilkes M, Gonyea M. A Comparative Study of Chiropractic and Medical Education. Published in Proceedings of the International Conference on Spinal Manipulation, Bournemouth, England. Published by the Foundation for Chiropractic Education and Research, 1996:98.
Hewlett E, **Coulter I**, McQuirter J, Kington R. Dental Health and Use of Dental Services Among African-American Elders in South Central L.A. The American Gerontology Society Meeting May 2-6, 1996.
Marcus M, Atchison K, **Coulter I**. Relationship Between Clinical and Self Perceived Oral Health Status. IADR Conference, San Francisco, 1996. Abstract *J Dent Res* 1996;75:83.
Shekelle P, Adams A, **Coulter I,** Hurwitz E, Genovese B. The Appropriateness of Chiropractic Spinal Manipulation for Low-Back Pain. Society for General Internal Medicine Conference, Jan. 10, 1995.
Danielson C**, Coulter I**, Hays R. Practitioner and Patient Agreement on Doctor Self-Care Recommendations. International Conference on Spinal Manipulation. Palm Springs, 6/95.
Parker L, Jacobson P, **Coulter I**. The Road to Professionalization: Nurse Practitioners and Physician Assistants. Health Services Research Conference, San Diego, June 1994. Abstract AHSR 1994:35.
Coulter I, Hays R, Danielson C. Patient Satisfaction with Chiropractic Care in Los Angeles. Health Services Research Conference, San Diego, June, 1994. Abstracts AHSR 1994:11.
Marcus M, **Coulter I**, Freed J. Appropriateness of Dental Treatment: An Examination of Consensus Panels. American Public Health Association 122nd meeting, Washington, D.C., APHA Program and Abstracts Oct. 1994:133.
Coulter ID. Do Chiropractors Provide Preventive Health Care and Health Promotion: Evidence From L.A. American Sociological Association Conference Abstracts 1994:109.
Danielson C, **Coulter I,** Hays R. Agreement Between Doctor and Patient on Treatment Recommendations. American Public Health Association 122nd Meeting, Washington, D.C., APHA Program and Abstracts, October 1994, 61.
Coulter ID. How to Think About Health Policy Issues: A Framework. American Public Health Association meeting, San Francisco, October 24-28, 1993.

Briefs, Government Submissions, Presentations

1979 Coulter ID, Dixon M. University of Toronto Brief to the Metropolitan Toronto Steering Committee on a District Health Council for Metropolitan Toronto. 1979.

1980 Report on the Research Needs for the Health Disciplines Dentistry, Pharmacy, Nursing, Optometry, and Veterinary Medicine in Ontario. November 1980. Brief prepared for the Ontario Council of University Health Sciences.

1981 Report on Health Science Research Priorities, University Toronto. June. Brief prepared for the Council of Ontario Universities. June 1981.

1984 Future Development of the Universities of Ontario. Brief prepared for the Canadian Memorial Chiropractic College, Toronto. August 1984.

1985 University Affiliation and the Canadian Memorial Chiropractic College. Brief prepared for the Honorable Greg Sorbara, Minister of Colleges and Universities, Province of Ontario. October 1985.

1986 Private Degree Granting Institutions in Ontario. Brief submitted to the Ontario Council of University Affairs by the Canadian Memorial Chiropractic College. July 1986.

1987 The Health Care Practitioner. Brief submitted to the Ontario Health Panel for the Board of Directors of Chiropractic, Ontario. November 1987.

1988 Brief to the Standing Committee on National Health and Welfare on behalf of the Canadian Chiropractic Association. April 1988.

1988 The Changing Health Care System. Brief to the Special Committee of the Canadian Senate on Preventive Health Care. August 1988. Submitted on behalf of the Canadian Chiropractic Association.

1988 Chiropractic Health Care. Presentation to staff of Health and Welfare Canada, Ottawa on behalf of the Canadian Chiropractic Association.

1988 The Future of Health Care in Alberta. Submission to the Premier's Commission on the Future of Health Care, Alberta, October 1988.

1989 Second Submission to the Ontario Council on University Affairs on Private Degree Granting Institutions, January 1989.

1989 An Alternative Academic Health Science Center for Allied Health Sciences. Brief prepared for the Senate of the University of Victoria, August 1989.

1989 A Proposal to Move the Canadian Memorial Chiropractic College to Victoria, British Columbia. Brief presented to the Caucus of the British Columbia Government, May 1989.

1989 University of Victoria and the Canadian Memorial Chiropractic College: A Proposal for Integration. Report prepared for the Senate of the University of Victoria. December 1989.

1989 A Canadian Center for Neuro-Musculo-Skeletal Disorders. Brief prepared for the University of Victoria, 1989.

1982-1989 Briefs submitted to the Ontario Health Professions Legislation Review (HPLR). This consisted of some *5*

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briefs written on behalf of the Canadian Memorial Chiropractic College.
1990 Brief prepared for the Standing Committee on Health and Welfare, Social Affairs, Seniors and the Status of Women, March 1990.

Monica Greco, PhD

Curriculum Vitae

1. Personal Information / Contact Details

Name Monica Greco (Dr)
Date of birth: 18.02.1966
Nationality: Italian
Address: 59, Carlisle Road, Hove, BN3 4FQ
Tel.: 01273 770845 (home)
020 7919 7719 (office)
E-mail: m.greco@gold.ac.uk

2. Higher Education Qualifications

1996 European University Institute (Department of Social and Political
Sciences). PhD in Social and Political Sciences.
Dissertation title: 'Illness as a Work of Thought: The Emergence of a Modern Problem'.

My doctoral dissertation was awarded a *Distinction* by an examining panel consisting of:
Prof. Hubert Dreyfus (University of California at Berkeley)
Prof. Steven Lukes (European University Institute/LSE)
Prof. Alberto Melucci (University of Milan)
Prof. Alessandro Pizzorno (supervisor, EUI)
Prof. Arpad Szakolczai (co-supervisor, EUI)

1991 University of Sussex (School of English and American Studies)
MA in Critical Theory.

1989 University of Sussex (School of European Studies)
BA in History with Latin. *First Class Honours.*

3. Honours And Awards

2006 Award for Excellence in Teaching and Learning, Goldsmiths College.
2001 Research Fellowship of the Alexander Von Humboldt Foundation.
1989 Annual Prize of the Society for the Study of Modern and Contemporary France for best undergraduate dissertation in the UK.

4. Present Appointment

Present post:
Senior Lecturer in Sociology
Department of Sociology
Goldsmiths College, University of London
New Cross, London SE14 6NW

Date of appointment to present post: 1 September 2004

5. Publications

Books (authored)
1998 Illness as a Work of Thought – A Foucauldian Perspective on Psychosomatics. London & New York: Routledge. 189 pp. (ISBN 0-415-17849-5)

Books (edited)
2008 (with P. Stenner) The Emotions: A Social Science Reader. London & New York: Routledge.
2005 (with M. Fraser) The Body: A Reader. London & New York: Routledge.
2000 (with D. Della Porta and A. Szakolczai) Identità, Riconoscimento e Scambio: Saggi in Onore di Alessandro Pizzorno. Rome: Laterza. 309 pp. (ISBN 88-420-6064X)

Journal articles (peer reviewed)
2009 The health society: polemics and problematizations. Österreiche Zeitschrift für Soziologie. (forthcoming)
2005 On the vitality of vitalism. Theory, Culture and Society. 22(1): 15-27 (DOI: 10.1177/0263276405048432)
2004 The politics of indeterminacy and the right to health. Theory, Culture and Society. 21(6): 1-22 (DOI: 10.1177/0263276404047413)
2004 The ambivalence of error: Scientific ideology in the history of the life sciences and psychosomatic medicine. Social Science and Medicine. 58(4): 687-696 (DOI: 10.1016/S0277-9536(03)00220-X)
2003 Theoretische Grenzen des 'Recht auf Gesundheit' und die Politik der Natur. Mitteilungen des Instituts für Sozialforschung. 15: 147-170 (ISSN 0942-1378)
2001 Inconspicuous anomalies: alexithymia and ethical relations to the self. Health. 5(4): 471-492 (ISSN 1363-4593)
1998 The time of the real: When disease is 'actual'. Cultural Values. 2(2-3): 243-60. (ISSN 1362-5179)

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1998 Between social and organic norms: Reading Canguilhem and 'somatization'. Economy and Society. 27(2-3): 234-48. (ISSN 0308-5147)
1996 (with D. Sparti) Soggetti a verità: Foucault, Heidegger e la questione del soggetto.
Paradigmi. 14/41(May-Aug): 315-37. (ISSN 1120-3404).
1993 Psychosomatic subjects and the 'duty to be well': Personal agency within medical rationality. Economy and Society. 22(3): 357-372. (ISSN 0308-5147)

Book contributions
2009 On the art of life: a vitalist reading of medical humanities. In: Latimer, J. and Schillmeier (eds) Un/knowing Bodies. Sociological Review Monographs. Oxford: Blackwell.
2009 Self, narrative and illness as creative invention. In: Twohig, P. and Perrins, P. (eds) (details to follow)
2008 Governmentality and the value of introspection. In: Würgler, M. and Saller, V. (eds) New Psychiatric Diagnoses as Reflections of Global Social Change. Zurich: Seismo Verlag.
2006 On the vitality of vitalism. In: Iwele, G., Kerr, L. and Mudimbe, V. Y. (eds) The Normal and Its Orders: Reading Georges Canguilhem. Ottawa: Editions Malaïka.
2005 On the vitality of vitalism. In: M. Fraser, S. Kember and C. Lury (eds) Inventive
Life: Approaches to the New Vitalism. London: Sage.
2004 Wellness. In: U. Bröckling, S. Krasmann and T. Lemke (eds) Glossar der Gegenwart. Frankfurt: Suhrkamp Verlag.
2000 Homo Vacuus. Alexithymie und das neoliberale Gebot des Selbstseins, in T. Lemke, S. Krasmann, and U. Bröckling (eds) Gouvernementalität der Gegenwart. Frankfurt: Suhrkamp Verlag. (ISBN 3-518-29090-8)
2000 (with D. Della Porta and A. Szakolczai) Identità, riconoscimento e scambio: Una introduzione, in: Della Porta, D., Greco, M. and Szakolczai, A. (eds) Identità, Riconoscimento e Scambio: Saggi in Onore di Alessandro Pizzorno. Bari/Rome: Laterza. (ISBN 88-420-6064X)
1998 The time of the real: When disease is 'actual', in S. Lash, A. Quick and R. Roberts (eds) Time and Value. Oxford: Blackwell. (ISBN 0-631-21003-2)
1995 Psykosomatiska subjekt och 'plikten at vara frisk': personligt handlande i medicinsk rationalitet, in K. Hultqvist and K. Peterson (eds) Foucault: Namnet på en Modern Vetenskaplig och Filosofisk Problematik. Stockholm.

Other
1993 Lo psicosomatico tra verità e finzione: Note sull investigazione storica della
Malattia. Rassegna Italiana di Sociologia. 34: 305-318. (Review article)
2003 On the right to health and the limits of health governance. In: J. Allmendiger (ed.)
Enstaatlichung und soziale Sicherheit. Verhandlungen des 31. Kongresses der Deutschen Gesellschaft für Soziologie in Leipzig. Opladen: Leske + Budrich. (Published conference proceeding

Book reviews
2008 Review of A. Webster (2007) Health, Technology and Society: A Sociological Critique. Rassegna Italiana di Sociologia. 3 (Jul-Sep): 482-484.
2005 Review of S. Williams (2003) Medicine and the Body. British Journal of Sociology 56(3): 516-518.
2004 Review of S. Williams (2003) Medicine and the Body. Rassegna Italiana di Sociologia 3 (Jul-Sep): 461-462.
2003 Review of A. Barry (2001) Political Machines: Governing a Technological Society. Rassegna Italiana di Sociologia 3 (Jul-Sep): 463-467.
2002 Review of M. Lock (2001) Twice Dead: Organ Transplants and the Reinvention of Death. Rassegna Italiana di Sociologia. 4 (Oct-Dec): 650-653.
1999 Review of A. Pedersen and C. Waddell (eds) (1998) Health Matters. Critical Public Health. 9: 351-353.
1999 Review of S. Mennell and J. Goudsblom (eds) (1998) Norbert Elias: On Civilisation, Power, Knowledge; J. Goudsblom and S. Mennell (eds) (1998) The Norbert Elias Reader; and R. Van Krieken (1998) Norbert Elias. British Journal of Sociology. 20: 354-356.
1998 Review of M. Berg (1997) Rationalizing Medical Work. Sociology of Health and Illness 20: 401-2.

Academic Translations
(all from English into Italian, unless otherwise specified)

Books
1996 (with Francesca Greco, from the French original) Della Porta, D. and Meny, Y. (eds) Democrazia e Corruzione. Napoli: Liguori.
1997 Kekes, J. La Moralità del Pluralismo. Firenze: La Nuova Italia.

Journal articles
1991 Lukes, S. Teorie della giustizia: amico e nemico. Iride. 6: 180-186.
1992 Meyers, P. I due percorsi dello sviluppo morale: una svolta nel cammino del femminismo? Iride. 8: 164-179.
1992 Apel, K-O. La dimensione ermeneutica delle scienze sociali e la sua fondazione normativa. Scheria. 1: 5-25.

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1996 Pizzorno, A. (1996) Decisioni o interazioni? La micro-descrizione del cambiamento sociale. Rassegna Italiana di Sociologia. 37: 107-132.

6. Research-Related Activities

Organisation of conferences and symposia
Die Sprache der Medizin, Potsdam, November 2005. Co-organiser (with F. Störmer and H. Schöndienst, under the auspices of the Viktor Von Weizsäcker Gesellschaft and of the Potsdam Einsteinforum).
The Politics of Art and Science, Symposium, Goldsmiths, London, June 2005. Co-organiser (with A. Stockl and M. Fraser).
Whitehead, Invention and Social Process, Goldsmiths, London, June 2004 Co-organiser (with A. Barry, M. Fraser, A. Toscano, M. Halewood).
Vital Politics, London School of Economics, September 2003. Co-organiser (with N. Rose, M. Valverde, I. Helen, and S. Cohn).
Gesunde Körper, kranke Gesellschaft?, Frankfurt-am-Main, April 2003. Co-organiser (with T. Lemke).
Workshop with Isabelle Stengers, Goldsmiths, London, March 2002. Co-organiser (with A. Barry and M. Fraser).

Editorial and referee work
Member of the editorial board of the Medical Humanities (BMJ Group).
I have been a book proposal reviewer for Routledge, and a referee for the journals Economy and Society, Social Science and Medicine, Theory, Culture and Society, Health:, History of Human Sciences, Biosocieties, and Feminist Review among others.
I have acted as an academic referee on research funding proposals for the ESRC, and for the Austrian Science Fund (FWF, Vienna).
Member of the international editorial committee of the Italian journal Studi Culturali (il Mulino).

Other
1997-2000 Coordinator (with Vikki Bell and Nikolas Rose) of the London History of the Present research network.
I am a founding member of the Centre for the Study of Invention and Social Process (http://www.goldsmiths.ac.uk/csisp/) at Goldsmiths.
I am a member of the Alexander Von Humboldt UK Association Committee.

7. Conference Presentations And Invited Seminars
(starred items denote invited plenary presentations)
September 2008 La health society: polemiche e problematizzazioni. Invited seminar presentation. Dipartimento di Scienze Sociali. Università degli Studi di Torino, Turin.
*March 2008 'The health society: polemics and problematizations'. Invited plenary presentation at Auf dem Weg zur Gesundheitsgesellschaft?, the conference of the Swiss, Austrian and German Associations for Medical Sociology and Sociology of Health and Illness, FH Joanneum, Bad Gleichenberg, Austria.
September 2007 'On medical vitalism'. Paper presented at the Un/knowing Bodies interdisciplinary colloquium, University of Cardiff.
September 2007 Invited discussant at The State of Governmentality: Current Issues and Future Challenges, workshop organized by U. Bröckling, S. Krassman and T. Lemke, Leipzig.
July 2007'Self, narrative, and illness as creative invention'. Paper presented at the 6th global conference on Making Sense of Health, Illness and Disease, Oxford.
May 2007 'Reframing the politics of a "right to health"'. Invited seminar presentation. London Medical Sociology Group (subsection of the BSA), King's College London.
*November 2006 La svolta narrativa nella biomedicina: linterdisciplinarità come immaginario etico e politico. Invited plenary presentation at the annual conference of the Italian Society for Group Analysis (Il Cerchio Onlus), La Relazione Terapeutica tra Antropologia e Gruppoanalisi, Naples.
October 2006 'The construct of alexithymia: A socio-cultural analysis'. Paper presented at the Alexander Von Humboldt (UK) Annual Meeting, University of Cambridge.
July 2006'Constructing "humanity": Thinking with Stengers and Whitehead about medical humanities'. Paper presented at the 6th International Whitehead Conference, The Importance of Process, System and Adventure, University of Salzburg.
June 2006 'Observing medical humanities: Interdisciplinarity as a political imagination'. Invited seminar presentation, Zentrum Geschichte des Wissens, University of Zurich.
December 2005 'The functions of interdisciplinarity: observing medical humanities'. Invited seminar presentation, Department of Sociology, University College Cork.
*November 2005 'The question of "humanity": a comparison of medical humanities and anthropological medicine.' Invited plenary presentation at the annual conference of the Viktor Von Weizsäcker Gesellschaft, Die Sprachen der Medizin, Einsteinforum, Potsdam.
June 2005 'Psychosomatic medicine, interdisciplinary relations, and scientific ideology'. Paper presented at the biannual conference of the International Society for Theoretical Psychology, Cape Town.
*November 2004 'Governmentality and the value of introspection'. Invited plenary presentation at the conference of the Swiss Medical Anthropology Society, Die Politik der Emotionen, University of Zurich.

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*May 2003 'The experience of women in academia: elements for a comparative perspective'. Invited plenary presentation and round table discussant at the yearly Conference of University Vice-Chancellors of German Universities (Hochschulrektoren-konferenz), Dresden.
May 2003 'Life and normativity: A reappraisal of vitalism'. Invited seminar presentation, Institut für Sozialforschung, Frankfurt-am-Main.
May 2003 Narrative medicine and Viktor von Weizsäcker: a report and suggestions for research. Invited seminar presentation at the Viktor von Weizsäcker Gesellschaft, Berlin.
October 2002 'On the right to health and the limits of health governance'. Paper presented at the conference of the German Sociological Association, Entstaatlichung und soziale Sicherheit, Leipzig.
September 2001 'Frailty as indeterminacy: on the right to health and its limits'. Paper presented at the Human Frailty conference, Bristol.
August 2000 'Parasite logic: pursuing health and evaluating disease'. Paper presented at the Ethos of Welfare conference held at the University of Helsinki.
April 1999 'Inconspicuous anomalies: Alexithymia and ethical relations to the self'. Invited seminar presentation, Department of Social Science, University of Loughborough.
November 1998 'Psychosomatic medicine as a research problem'. Invited seminar Presentation, School of Social Sciences, Sussex University.
November 1998 'Legal and ethical dilemmas around somatization'. Invited seminar Presentation, Law Department, Birkbeck College.
July 1998 '"Without words for emotions": On pathogenic normality'.Paper presented at the Figurational Sociology session of the biannual conference of the International Sociological Association, Montreal.
April 1997 'A tension-ridden history: Psychosomatic medicine'. Paper presented at the History and Philosophy of Psychology session of the British Psychological Society annual conference, Edinburgh.
April 1997 'The time of the real: When disease is "actual"'. Paper presented at the Time and Value conference, University of Lancaster.
November 1996 'Somatization: The normativity of the body/mind analytic'. Invited
seminar presentation, School of Economic and Social Sciences of the University of East Anglia, Norwich.
June 1996 'Il quadro e la cornice: Prospettive sociologiche sulla psicosomatica'. Invited seminar presentation, Centro Studi Storici di Psicoanalisi e Psichiatria, Florence.
February 1996 'Archaeology and genealogy as methods'. Invited seminar Presentation, Psychology Department of the University of East London.
October 1995 'Bioetica e psicosomatica'. Invited seminar presentation, Working Group on Bioethics, Gramsci Institute, Florence.
October 1995 'Psychosomatic illness and somatization: Cultural and historical products of Western medicine'. Invited seminar presentation, Sociology Department, University College, Dublin.
April 1995 '*Homo Clausus* and the question of inner truth: Foucault, Elias, and the historical constitution of Western subjectivity'. Paper presented at the Figurational Sociology session of the BSA conference held in Leicester.
September 1992 'Psychosomatic subjects and the "duty to be well"'. Paper presented at the *Foucault and Politics* conference organized by the History of the Present research network at Goldsmiths College.

Peter Antony Goodwin Fisher, MD, FFHom

Date of Birth: 2nd September 1950
British national
Married, two children

Curriculum Vitae

Current Appointments
Clinical Director, Royal London Homoeopathic Hospital, University College London Hospitals NHS Trust.
Physician to HM The Queen
Director of Research, Royal London Homoeopathic Hospital, UCLH.
Consultant Physician, Royal London Homoeopathic Hospital, UCLH.
Editor in Chief, Homeopathy. (www.sciencedirect.com/homp)
Clinical Lead, National Library for Health, Complementary and Alternative Medicine Specialist Library (www.library.nhs.uk/cam)
Chair, international drafting committee World Health Organisation report: 'Homeopathy, Overview and Analysis of Clinical Research' .
Member, WHO Expert Advisory Panel on Traditional Medicine
Chair, International Scientific Committee on Homeopathy and Influenza. (www.world-medical-homeopathic-observatory.com)
Lead, National Cancer Research Institute Complementary and Alternative Medicine Clinical Studies Development Group, Tumour Progression Subgroup.

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Awards and Prizes
Recipient Albert Schweitzer Gold Medal, Polish Academy of Medicine, 2007.
Rafael Lopez Hinojosa Prize for Research in Homeopathy (Mexico) 1992
Blackmores Prize for Research in Complementary Medicine 1986
Previous Appointments
Honorary Consultant Rheumatologist, King's College Hospital (1994-2006).
Medical Director, Royal London Homoeopathic Hospital NHS Trust (1998-9)
Vice President, Faculty of Homeopathy (1991-4 and 1999-2003)
National vice president for the UK, International Homeopathic Medical League
Trustee, Homeopathic Trust
Deputy Chair, Advisory Board on the Registration of Homoeopathic Products, Medicines Control Agency, Department of Health.
Honorary Lecturer, Centre for Pharmacognosy, School of Pharmacy, University of London
Honorary Lecturer in Rheumatology and Complementary Medicine,
St Bartholomew's Hospital Medical College.
Honorary Visiting Rheumatologist, St Bartholomew's Hospital.
Research Fellow, Department of Clinical Pharmacology, St Bartholomew's Hospital.
Member, European Commission Homoeopathic Medicine Group, European Commission Directorate-General XII, Brussels.
Chairman, European Committee for Homoeopathy Clinical Research subcommittee

Degrees and Qualifications
MA (Cantab), MBBChir (Cantab), FRCP (London), FFHom (Fellow of the Faculty of Homoeopathy).
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Email: peter.fisher@uclh.nhs.uk

Summary

Dr Peter Fisher is Clinical Director and Director of Research at the Royal London Homoeopathic Hospital, London, England, Europe's largest centre for integrative medicine. He is also Homeopathic Physician to Her Majesty Queen Elizabeth II.

He chaired the World Health Organisation's working group on homeopathy and is a member of WHO's Expert Advisory Panel on Traditional and Complementary Medicine. He is Editor-in-Chief of Homeopathy, published by Elsevier, the only journal dedicated to homeopathy indexed in Medline (www.sciencedirect.com/homp). He is also Clinical Lead of the UK's National Library for Health's on-line Complementary and Alternative Medicine Specialist Library, the UK National Health Service's official knowledge website for Complementary and Alternative Medicine (www.library.nhs.uk/cam), and of the Complementary and Alternative Medicine Library and Information Service (CAMLIS, www.cam.nhs.uk). He was awarded the Albert Schweitzer Gold Medal of the Polish Academy of Medicine in 2007.

A Fellow of the Royal College of Physicians, he is accredited as a specialist in both homeopathy and rheumatology. He has published many papers on research in homeopathy and other forms of Complementary and Alternative Medicine.

Peter Fisher's interest in Complementary Medicine was triggered by a visit to China during the Cultural Revolution while still a medical student at Cambridge University. He focussed on homeopathy while a junior doctor on call at The Royal London Homoeopathic Hospital.

Education
1964 - 1968: Tonbridge School, Tonbridge, Kent.
1968 - 1969: Volunteer worker with Britain-Nepal Medical Trust, Biratnagar, Kosi zone, Nepal.
1969 - 1972: Emmanuel College, Cambridge University
BA 1972
1972 - 1975: Westminster Medical School
MB BChir 1975
MFHom (Membership of the Faculty of Homeopathy) 1977
MRCP(UK) 1979
FFHom (Fellowship of the Faculty of Homeopathy)1986
FRCP (London) 1998

Medical Career
September 1986 - Present: Consultant Physician, Royal London Homoeopathic Hospital.
September 1994 - Present: Honorary Consultant Rheumatologist,

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King's College Hospital.
1990 - 1994: Honorary Lecturer in Rheumatology and Complementary Medicine, St Bartholomew's Hospital Medical College.
1986 - 1994: Honorary Visiting Rheumatologist, St Bartholomew's Hospital.
1983 - 1986: Research Fellow, Departments of Clinical Pharmacology (Prof Paul Turner) and Rheumatology (Dr E C Huskisson), St Bartholomew's Hospital.
1985 - 1986: Locum Consultant Physician, Royal London Homoeopathic Hospital.
1984 - 1985: Clinical assistant, Royal London Homoeopathic Hospital.
1982 - 1983: Various Medical locum posts.
1979 - 1982: Medical Registrar rotation, Central Middlesex Hospital.
1978 - 1979: Medical Registrar, Royal London Homoeopathic Hospital
1977: SHO General Medicine, Royal London Homoeopathic Hospital
1977: House Physician, George Eliot Hospital, Nuneaton, Warks.
1976: House Surgeon, Basildon Hospital, Basildon, Essex.

Selected Publications

Fisher P: A Great Treasure House: traditional medicine in the Cultural Revolution; China Now November 1975.
Fisher P: New Toxicology: Lead. Br Hom J 1981; 70: 1-10.
Fisher P, Is Homoeopathy scientific? A reply to Anthony Campbell. Br Hom J 1981; 70: 152-8.
Fisher P, Carcinogenesis 1: Cancer and Carcinogens; Br Hom J 1982;71: 126-137.
Fisher P, Carcinogenesis 2: Cytotoxics and Cocarcinogens; Br Hom J 1982; 71:183-196.
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Clover A, Last P, Fisher P, Wright S, Boyle H. Complementary cancer therapy: a pilot study of patients, therapies and quality of life. Complementary Therapies in Medicine 1995; 3: 129-133.
Fisher P, Dantas F, Reilly D. Homoeopathic treatment of childhood diarrhea. Pediatrics 1996; 97: 776.
Dantas F, Fisher P. A systematic review of homoeopathic pathogenetic trials: methodological aspects and preliminary results from UK and US publications. Proc 51st Congress of LMHI 1996; 335-336.
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Vickers A, Cassileth B, Ernst E, Fisher P, Goldman P, Jonas W, Kang SK, Lewith G, Schulz K, Silagy C. How Should We Research Unconventional Therapies? A Panel Report from the Conference on Complementary and Alternative Medicine Research Methodology, National Institutes of Health. International Journal of Technology Assessment in Health Care 1997;13:111-21
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Fisher P. Un concept plutôt quune technique. La Recherche 1998;310:59-62.
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Joseph E. Pizzorno, Jr., N.D.

Professional Profile

Salugenecists: President
POB 25801
Seattle, WA 98165-1301
Phone: (206)368-5403; Fax (206)368-8570
drpizzorno@salugenecists.com

Bastyr University: President Emeritus
Institute for Functional Medicine: Chair Board of Directors
Integrative Medicine, A Clinician's Journal: Editor In Chief

"The most pervasive and silently accepted crisis in America today is the ill healt of our people. We must change our fundamental approach from a traditional disease-driven, treatment-oriented medical model, to one that deals with the real problem of improving people's health."

A Practical Visionary

Creating a new vision of health care

A pioneer in the field of natural medicine, Joseph E. Pizzorno, Jr., N.D. is a practical visionary who has dedicated his life to improving the health of the human community. His work is devoted to changing how the world views health and encouraging others to become agents for change. His expertise and accomplishments have established the foundation for a bold vision, while his initiatives contain the building blocks needed to move toward that vision.

Building a new model for health care delivery

Dr. Pizzorno's groundbreaking efforts established Bastyr University, the first accredited, multidisciplinary university of natural medicine in the United States. His initiative and commitment inspired the creation of the first comprehensive government-run natural medicine clinic in the country. He is also the only licensed natural medicine doctor to ever serve on a county board of health. Dr. Pizzorno's political savvy has helped propel the profession of Naturopathic Medicine from obscurity to national prominence.

Making his vision a reality

Proven leadership, pioneering work, and natural medicine expertise make Dr. Pizzorno a force for changes that will make a positive difference in the health of the human community. His vision reflects a new model of health care delivery in America, one that emphasizes wellness through the comprehensive integration of conventional and natural medicine.

Utilizing natural health concepts to improve health

Realizing that corporate America, which pays 65% of the health care dollar, will ultimately determine the healthcare system, Dr. Pizzorno has begun working on ways to improve employer access to the benefits of natural healthcare. In 2001, Dr. Pizzorno founded Salugenecists, Inc. to bring natural health concepts to corporate health promotion programs. Based on 30 years of experience, Dr. Pizzorno has lead Salugenecists to create unique, innovative self-care strategies and technologies that will dramatically change corporate wellness and health promotion programs.

A Health Care Pioneer Transforming the study of natural medicine. Since co-founding Bastyr University in 1978 as the first science-based institution of natural medicine, Dr. Pizzorno has helped produce an entire generation of licensed naturopathic physicians and other natural medicine practitioners. Under his vision and leadership, Bastyr became the first accredited, multidisciplinary university of natural medicine in the United States, attaining international recognition as the leader in the study and research of science-based natural medicine.

Creating tools for educational advancement

When Dr. Pizzorno co-founded Bastyr, no mechanism existed to objectively establish credibility for schools of natural medicine. In response, he helped established the pathway to accreditation.

Vitalism Faculty: Biographies and Curriculum Vitae

When he discovered that no modern textbooks for the study of natural medicine existed, he collaborated with Michael Murray, N.D. to create A Textbook of Natural Medicine. This comprehensive, 200 chapter textbook with 10,000 citations to the peer-reviewed scientific literature remains the international standard for the education of natural medicine physicians.

Building a world-renowned research institute
Recognizing the need to subject natural medicine theories and practices to objective, scientific evaluation, Dr. Pizzorno facilitated the formation of the Bastyr University Research Institute and worked to secure research funds to become one of the first natural medicine research centers funded by the National Institutes of Health.

Establishing standards of educational excellence
Bastyr University exemplifies educational excellence for institutions of natural medicine throughout the world, with a health sciences faculty of over 150 qualified educators and researchers, including naturopathic physicians, Ph.D.'s, medical doctors, acupuncturists and nutritionists, among others. Over 1,000 students per year enroll in degree programs in Acupuncture and Oriental Medicine, Nutrition, Applied Behavioral Sciences, Psychology and Naturopathic Medicine.

A Force for Social and Policy Change
Advancing and leading change at the national level
Appointed in December 2000 to the White House Commission on Complementary and Alternative Medicine Policy, Dr. Pizzorno has been a strong voice for effective and responsible inclusion of CAM professionals, CAM institutions and natural health care products into the health care system. Created to advise the Congress and President on how to integrate alternative and complementary medicine into the health care system, this historic Commission is playing a critical role in helping shape the future of health care in the United States. In November 2002 Dr. Pizzorno became the first natural medicine doctor to be appointed to the Medicare Coverage Advisory Committee.

Advocating consumer education, access and choice
Dr. Pizzorno recognizes the need to institutionalize change. That's why encouraging progressive public policies and advocating marketplace reform to create a new model of health care delivery form a significant focus of his time and attention. Dr. Pizzorno is dedicated to instituting a comprehensive political and marketplace model within which health care practitioners can better serve the needs of patients.

Working for change within established systems
Dr. Pizzorno's 1996 appointment to the Seattle-King County Board of Health distinguishes him as the first non-conventional medical expert in the country to serve in such a capacity. In this position, he has initiated a dialogue about natural medicine solutions to public health issues that has inspired the Board of Health to investigate the possible public health use of the trace mineral selenium to reduce the risk of cancer. In 1999, he was reappointed for a third two-year term of service.

Creating new guidelines and standards
As part of his long-standing effort to establish scientific standards for natural medicine education, Dr. Pizzorno co-founded the Council for Naturopathic Medical Education (CNME) in 1978. He wrote the standards and spearheaded CNME's successful effort to secure accreditation from the U.S. Department of Education in 1987.

Lending expertise to legislative dialogue
Dr. Pizzorno is a familiar voice in national discussions on credentialing. At numerous state legislatures across the country, he provides testimony in favor of strong licensing and rigorous educational standards for Naturopathic Physicians and other health care providers. His early work to establish a "scope of practice law" in Washington State helped transform a wary legislative environment into one that now boasts the most comprehensive "every category of provider" insurance statute in the nation.

A Collaborative Innovator
Coordinating projects through the integration of ideas
Dr. Pizzorno has spent more than 30 years building relationships with leaders in the fields of health care, insurance, government, education and natural medicine. He understands the importance of uniting others around a common goal; creative collaboration is a key ingredient in each of his achievements.

As the largest consumer of health care in America, the way business addresses employee health benefits establishes many consumer expectations and attitudes about health care. Recognizing this, Dr. Pizzorno is currently involved in new company that demonstrates the best strategies for integrating alternative care into established company health programs and insurance coverage.

Building connections throughout the United States
Dr. Pizzorno has also devoted time to building connections with business, provider and consumer groups. He serves on health advisory panels for well-known companies, is a familiar face at in-

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dustry trade shows, works closely with national consumer groups and provides his expertise as a member of numerous editorial boards of health and medical publications.

Providing expertise on national issues
Dr. Pizzorno is regularly called upon to share his expertise with members in both houses of Congress. He has provided input and testimony to the National Institutes of Health, the Federal Trade Commission and First Lady Hillary Rodham Clinton's Health Care Reform Task Force. Dr. Pizzorno regularly speaks about national health care policy issues, including the 1998 push to establish the National Institutes of Health's Center for Complementary and Alternative Medicine. He also makes presentations to numerous advisory boards and has addressed panels at several federal agencies.

An International Writer and Speaker
Improving the health of the human community
As co-author of the best-selling Encyclopedia of Natural Medicine *(over a million copies sold in six languages),* author of Total Wellness and senior editor and co-author of the internationally acclaimed A Textbook of Natural Medicine, Dr. Pizzorno has introduced and taught credible natural medicine to medical and lay audiences throughout the United States, South America, Canada, Europe, Asia and the South Pacific. Dr. Pizzorno is not the author of co-author of six books.

Sharing his expertise with an international audience
An esteemed lecturer, Dr. Pizzorno is committed to bringing science-based natural medicine to broad audiences around the world. He participates in about 25 speaking engagements and media interviews each year. He has engaged medical, public and corporate audiences in Argentina, Australia, Canada, China, England, Germany, Italy, Japan, New Zealand, South Africa, Taiwan and Thailand.

Dr. Pizzorno's Vision in Action
Dr. Pizzorno's accomplishments can serve as models for bringing the vision of integrative medical care into practice. Three examples include:

Bastyr University: A Powerful Agent for Change
Dr. Pizzorno developed Bastyr University into much more than just the preeminent natural medicine university. The university also strives to be a powerful agent for change. Bastyr not only trains skilled practitioners but also commits significant resources to serve as a public voice in advancing its mission to improve the health of the human community. The university regularly collaborates with public and private interests to demonstrate, in practical terms, the power of integrating natural and conventional medicine.

Health Care Policy Roundtable Series
Among its many programs, Bastyr University hosts a Health Care Policy Roundtable Series that brings some of the nation's leading opinion leaders and policy makers together to discuss critical issues that affect the future of health care delivery in America. The series seeks to improve health care policy and decision making by deepening the understanding of facts, issues and options central to the debate around integrative care.

From its initial *Comprehensive Health Care* discussion with U.S. Senator Tom Harkin (D-IA) to its Roundtable on *Designing the Doctor of the Future* with leaders from the natural and conventional medical professions, Bastyr seeks to be a central force in the evolution of integrated medical care. King County Natural Medicine Clinic: A Model of Integrative Care

In yet another display of practical innovation, Dr. Pizzorno and Bastyr University are at the forefront of the national movement toward fully integrated medical care with participation in a unique demonstration project. In 1996, the traditionally conservative King County Council awarded Bastyr University, in joint venture with the nonprofit Community Health Centers of King County, a $750,000 grant to start the country's first fully integrated, publicly funded conventional and natural medicine clinic.

At the King County Natural Medicine Clinic, conventional and natural medicine doctors work side by side co-managing patient care. The Clinic has a staff of two family medical doctors, a physician's assistant, a nutritionist, two naturopathic physicians and an acupuncturist and practitioner of traditional Chinese medicines. In its first two years of operation, the Clinic logged over 5,000 patient visits. Community Health Centers of King County continues to operate the clinic and is considering expanding natural medicine services to other sites. Building on this successful experience, Dr. Pizzorno is discussing other joint ventures and integration demonstration projects with other hospitals and clinics in the Northwest.

Developing Academic and Industry Standards
Dr. Pizzorno has worked for decades to establish science-based natural medicine as a credible complement to conventional medical care. This hallmark of his overall vision is evident in every aspect of his work, from drafting accreditation standards and writing dietary supplement industry guidelines, to establishing

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research guidelines and designing training curriculum for health food stores.

Dr. Pizzorno spearheaded efforts to establish modern, educational standards for naturopathic physicians, which were approved by the U.S. Department of Education in 1987. The accreditation program involves a four and five year curriculum with over 4,000 hours of instruction to students who have already completed pre-med. Medical science and clinical diagnostic skills are taught during the first two years. Students also undergo extensive, supervised clinical training in outpatient naturopathic clinics. Graduates of an approved program are eligible to take the Naturopathic Physicians Licensing Exam (NPLEX). The results of this exam are used by all states that license individuals to practice naturopathic medicine.

Dr. Pizzorno continues to initiate projects that add understanding, credibility and predictability to complementary and alternative medicine. One example is the creation of the Bastyr University Dispensary Standards. This manual provides natural products consumers with extensive information about the contents, production and quality control standards of natural products. It gives consumers the critical information they need to determine which products are most likely to safely provide the health benefits they are seeking.

Public Policy Activities

2002-2004 Medicare Coverage Advisory Committee Member
2000-2002 White House Commission on Complementary and Alternative Medicine Policy Commissioner
1996-2002 Seattle/King County Board of Health Member
1993-94, 2002-03 U.S. Federal Trade Commission Expert Consultant
2000-2002 Integrated Healthcare Policy Consortium Member
2000 Josiah Macy, Jr, Foundation, Conference on Education of Health Professionals in Complementary and Alternative Medicine Invited participant
1999-2001 American Public Health Association
Chair, Special Primary Interest Group (SPIG) on Complementary and Alternative Health Practices
1996-2000 Washington Health/University of Washington, Dept. of Public Health, Editorial Advisory Council Member
1998 Microsoft Corporation**,** Health Care Advisory Council Member
1995-97 NIH Office of Alternative Medicine Center for Complementary and Alternative Medicine Research in Asthma and Allergy
Advisory Council Member, University of California, Davis
Blue Cross of Washington and Alaska
Alternative Health Care Advisory Committee Member
NIH Office of Dietary Supplements
Ad Hoc Advisory Committee Member
United States Congress
Advisory Panel on the Safety and Efficacy of Dietary Supplements member, Office of Technology Assessment
1993 Role of Naturopathic Medicine in Health Care Reform
Expert Witness, First Lady Hillary Clinton's Health Care Reform Taskforce

Publications

2008, 2001 Pizzorno JE, Murray MT and Joiner-Bey H, Handbook on Natural Medicine for Physicians*,* Elsevier, New York (2nd Ed)
2006, 1985 Pizzorno JE and Murray MT, A Textbook of Natural Medicine*,* Elsevier, New York (3rd edition)
2005 Dunne N, Benda W, Kim L, Mittman P, Barrett R, Snider P, Pizzorno J. Naturopathic medicine: what can patients expect? J Fam Pract. 2005;54:1067-72
2005 Murray MT, Pizzorno JE and Pizzorno LE: Encyclopedia of Healing Foods. Simon & Schuster
2002 Murray MT, Pizzorno JE, Reilly P and Birdsall T, Natural Medicine for The Prevention and Treatment of Cancer. Penguin Putman
2002 Pizzorno, LE, Pizzorno JE, and Murray MT, Natural Medicine Instructions for Patients. Elsevier
2002 Commentary, Alternative Therapies
1998, 1996 Pizzorno JE, Total Wellness, Prima, Rocklin, CA
1998, 1990 Murray MT and Pizzorno JE, Encyclopedia of Natural Medicine*,* Prima (Best seller – 1,000,000 copies), Translations: Greek, Hebrew, Italian, Russian, Spanish, and Yugoslavian
1994 Pizzorno JE, The Naturopathic Physician. Miami Medicine**,** 65:25-26
1993-94 Bimonthly Column (with Lara Pizzorno), Veggie Life, Concord, CA
1993 Monthly Research Review Column, Choices, Seattle, WA
1991-92 Bimonthly Column, Vegetarian Times, Oak Park, IL
1987 Barrie SA, Wright JV and Pizzorno JE: Effects of garlic oil on platelet aggregation, serum lipids and blood pressure in humans. Journal of Orthomolecular Medicine, 1:15-21
Barrie SA, Wright JV, Pizzorno JE, Kutter B, and Barron PC: Comparative absorption of zinc picolinate, zinc citrate and zinc gluconate in humans. Agents and Actions**,** 21:223-8
1977 Pizzorno JE: Phytolacca Decandra. Journal of Natural Medicine**,** 1:26-7

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1974 Simkin PA and Pizzorno JE: Transynovial Exchange of Small Molecules. Journal of Applied Physiology**,** 36:5

Editorial Responsibilities

2007-present WebMD
Integrative Medicine and Wellness expert
2002-present Integrative Medicine: A Clinician's Journal
Editor-in-Chief
2002-present Alternative Medicine Magazine
Editorial Board
2004-present Alternative Therapies
Editorial Board
2004-present Journal of Herbs, Spices and Medicinal Plants
Editorial Board
2001-2003 CAM for Practitioners, Great Britain
Medical Advisory Board
1996-present Natural Health Magazine
Advisory Board
1995-2002 Nutrition Science News
Editorial Advisory Board
1994-2003 Journal of Alternative & Complementary Medicine Editorial Board
1993-present Complementary Therapies in Medicine
International Advisory Board
1987-2006 Let's Live Magazine**,** Medical Advisory Board
1998 Textbook of Complementary and Alternative Medicine
Associate Editor
1994-97 Alternative & Complementary Therapies
Senior Medical Advisor
1992-96 Health News & Review, Editorial Board
Naturopathic Medicine: Contributions to Health Care Reform
Co-Author/Editor, Presented to Clinton Health Care Reform Taskforce
1993 Alternative Medicine: The Definitive Guide
Editorial Board
1992-93 Natural Foods Education Program
Senior Editor
1988-92 Journal of Naturopathic Medicine
Executive Editorial Board
1979-81 Journal of the John Bastyr College of Naturopathic Medicine**,** Editor

Selected Speaking Engagements

2003-2008 Micronutrients in Health: A Clinician's Perspective. Food as Medicine Conference, Baltimore, MD
2006 Digestion. CAM Expo for Professionals, New York, NY &Los Angeles, CA
2005 Detoxification. CAM Expo for Professionals, New York, NY &Los Angeles, CA
2007, 2004 Scientific Basis for Natural Therapies. Japanese Food Manufacturers annual conference, Tokyo, Japan
2004 A Physiological Approach to Botanical Medicine. Mountain State University. Beckley, WV
2004 Digestive Physiology: Enhancing Function. University Arizona, College of Medicine. Tucson, AZ
2004 Natural Medicine in the United States. NNFA Japan. Scheduled for May in Tokyo
2004 Recent Advances in Therapeutic Nutrition. Center for Mind Body Medicine. Scheduled for June in Berkley
2003 Natural Medicine in Cancer Care. Los Angeles Times Health Symposium. Los Angeles
2003 Detoxification. Alternative Therapies in Medicine. Seattle
2003 Natural Medicine Approaches for Common Diseases. American Association of Chiropractic Physicians. Denver, CO
2002 CAM for Underserved Populations. NW Rural Physicians Association Denver, CO
2002 Complementary Healthcare Policy
Sydney, Australia
2001 Comprehensive Cancer Care 2000: Integrating Complementary & Alternative Therapies. Arlington, VA
2000 American Association of Clinical Chemists, St. Louis, MI
1988-1999 University of Washington, School of Medicine, Medical History and Ethics Class, Seattle, WA
Health Expo – International Conference on Integrative Medicine
Seattle, WA
1999 Harvard Medical School Continuing Education
Boston, MA
Washington Health Legislative Conference, Seattle, WA
American Botanical Council World Med Conference
Los Angeles, CA
British Columbia College of Family Physicians , Vancouver, BC
1998 State of the Science in Alternative Medicine
Bangkok, Thailand; Tokyo, Japan
American Public Health Association Annual Conference
Indianapolis, IN
Tzu Chi Institute for Complementary and Alternative Medicine
Vancouver, BC
International Conference on Clinical Botanical Medicine
Auckland, New Zealand
Rosenthal Center for Alternative & Complementary Therapies/ Columbia University College of Physicians & Surgeons
New York, NY
Churchill Livingstone World Conference on Complementary Therapies in Medicine, Washington, DC
National Institutes of Health, National Conference on Integration of Alternative Medicine Education in Medical Schools

Vitalism Faculty: Biographies and Curriculum Vitae

Bethesda, MD
Joint AIDS and Complementary Committee, Great Britain's Parliament, London, UK
Chinese Medicine Conference, Taipei, Taiwan

Leadership Activities
2001-present Institute for Functional Medicine
Chair, Board of Directors
2007-present IntegrativePractitioners.com
Member, Scientific Advisory Board
2001-2003 The Research Council for Complementary Medicine, London
International Advisory Board
1998-2001 American Public Health Association
Complementary and Alternative Health Practices Special Primary Interest Chair, 1999-2001; Member, 1998-2002
1998-2000 Health Care Policy Roundtable Series
Convener
1996-present HerbalGram
Board of Advisors Member
1996-2005 American Herbal Pharmacopoeia
Board of Directors Member
1996-2000 HealthWorld OnLine
Advisory Board Member
1996-98 Shape
Editorial Advisory Board Member
Phytochemistry Research Institute
Advisory Council Member
1980-91 Seattle Midwifery School
Education Advisory Committee Member
1990 National Chinese Research Institute**,** Consultant
1978-87 Council on Naturopathic Medical Education
(U.S. Dept. Education-recognized accrediting agency)
President, 1985-87, Vice-President, 1987-89; Secretary, 1978-85
1978-87 Federation of Naturopathic Colleges
Board of Directors President, Co-Founder, Member
1980-85 Northwest Academy of Preventive Medicine
Member
1985-present American Association of Naturopathic Physicians
Board of Directors Founding Member
Member, Board of Directors, 1985-94
1979-81 United Trust for Naturopathic Medicine **,** President
1977-81 National Association of Naturopathic Physicians
Member
1977-present Washington Association of Naturopathic Physicians
Vice President, 1977-78
Member, 1975-present; Secretary, 1976-77;
Chair, Education Committee, 1976
1976-78 National College of Naturopathic Medicine
Board of Directors Member, Secretary

Media Activities
100 media interviews and appearances per year while president of Bastyr University, now 20/year. Examples include: MSNBC, Today Show, Good Morning America, PBS radio, Japan Times, etc.
Awards and Honors
2006 Honorary Doctor of Laws; Recognized as the institution's leading graduate at 50th anniversary celebration National College of Naturopathic Medicine
2004 Linus Pauling Award, Institute for Functional Medicine
2004 Leader in Therapeutic Nutrition, Natural Foods Merchandiser
2003 Healthcare Crusader, National Nutritional Foods Association
2003 Holistic Medicine Pioneer, American Holistic Medicine Association.
2002 Natural Medicine Pioneer, National Foundation for Alternative Medicine
2002 Naturopathic Physician of the Year, American Association of Naturopathic Physicians
2001 Leading health educator of the past 30 years, *Natural Health Magazine*
2000 Humanitarian of the Year, Cancer Treatment Centers of America
1996 Recognized as one of the top 20 national intellectual leaders from Seattle, *Seattle Magazine*
First recipient of the Benedict Lust Award
(Founder in 1896 of the naturopathic profession)
American Association of Naturopathic Physicians Convention
1988 President's Award
American Association of Naturopathic Physicians Convention
1987 Central Role in the Development and Federal Recognition of the Council on Naturopathic Medical Education Award
American Association of Naturopathic Physicians Convention
1981 Naturopathic Physician of the Year
Northwest Naturopathic Physicians Convention
2000-present President Emeritus
Bastyr University, Seattle, WA
1978-2000 President & Co-Founder
Bastyr University, Seattle, WA
Teaching and Research Faculty, Philosophy, Physical Diagnosis, Clinical Diagnosis, Environmental Health, Nutrition, Integrative Therapeutics, Advanced Case Analysis, Clinical Applications, Clinic Physician
1975-present Licensed Naturopathic Physician

Appendix

Washington State
2000-present Member, Cancer Treatment Research Foundation Board of Scientific Advisors
Arlington Heights, Illinois
1993 Certificate in Organizational and Group Leadership
Leadership Institute of Seattle (LIOS), Summer Institute
1981-89 Licensed Midwife
Washington State
1980-87 Human Subjects Review Committee Member
Bastyr University, Seattle, WA
1978-84 Part-time Faculty
Environmental Public Health
Seattle Central Community College, Seattle, WA
1978 Adjunct Faculty
Alternative Medicine
Evergreen State College, Olympia, WA
1975 Doctor of Naturopathic Medicine, Scholastic Honors
National College of Naturopathic Medicine, Portland, OR
1971-75 Research Technologist
Department of Rheumatology, School of Medicine
University of Washington, Seattle, WA
1974 Basic Sciences Certificate
Nevada State Healing Arts Board
1969 Bachelor of Science with Distinction, Chemistry
Harvey Mudd College, Claremont, CA

William R. Morris, MSEd, LAc, PhD

Objective: *Transformational Leadership and Education in Chinese Medicine*

Personal Mission: The acculturation of Chinese medicine in the American medical system.

Employment History
President, Academy of Oriental Medicine at Austin
Austin, TX 2005-Present
Emperor's College of Traditional Oriental Medicine
Santa Monica, CA
Dean 1998 - 2005
Faculty Member 1998 - 2005
Editorial reviewer for Elsevier Publications
2001 – Present
Seminars on Chinese Herbal Medicine 1982-Present
Private Practice 1982-Present

Appointments
Editorial board for the *Journal of Acupuncture and Tuina Science*
2009 - Present
Editor board *American Acupuncturist*
2006 - Present
Editor in Chief of the *American Acupuncturist*
2005 -2007
Advisory Board, *Integrator Blog*
2006 - Present
Emperor's College of Traditional Oriental Medicine
Santa Monica, CA
OM courses including Formula Writing,
1998- 2005
Clinical Point Selection, Case Review, Chinese Internal Medicine, and Principles of Treatment, Clinical preceptor
Massachusetts Association of Acupuncture and Oriental Medicine Worcester, MA
Program Director - Herbal Certification Program
1994-1996
Florida State Oriental Medical Association
Vero Beach, FL
Program Director - Herbal Certification Program
1995-1997
Emperor's College of Traditional Oriental Medicine
1990-1991
Program Director manual therapies department

Education
PhD at California Institute of Integral Studies 2009
Transformative Studies
Chinese Pulse Diagnosis: Epistemology, Practice and Tradition
Doctorate in Acupuncture and Oriental Medicine (DAOM) 2006
Emperor's College of Traditional Oriental Medicine
Santa Monica, CA
Pain Management specialty program
Master of Science, Medical Education June, 2004
University of Southern California
Los Angeles, CA
BS Business Administration June 2001
University of Phoenix
Gardena, CA
Master of Traditional Oriental Medicine (field gains accredited programs) 1990
Emperor's College of Traditional Oriental Medicine
Santa Monica, CA
Doctor of Oriental Medicine 1988
SAMRA University
Los Angeles, CA
Certificate in Traditional Oriental Medicine 1986

Vitalism Faculty: Biographies and Curriculum Vitae

Emperor's College of Traditional Oriental Medicine
Santa Monica, CA

Specialized Education

Leadership focused education USC, CIIS, ECTOM 2002-present
Young Wei-Jieh (studies in the classroom, clinic and translational editing) 2005-2006
Advanced Cardiac Life Support Systems (ACLS) 2005
French Classical Acupuncture - Tran Viet Duc 2003-2005
Historical developments of Chinese medicine Intensive - Paul Unschuld 2003
Dermatology - Dr Gu Neiqiang 2001-2005
Mentorship in the Menghe-Ding current - Leon Hammer, M.D., John HF Shen 1992-2001
New England School of Homeopathy –1993-1995
Paul Herscu and Vaseles Ghegas
MORA Therapeutics - Walter Sturm 1991
Cupping, Dr. Min Der Wang, Taipei, Taiwan R.O.C. 1991
Japanese acupuncture and moxibustion, Kiiko Matsumoto 1990-1996
Shaku Ju acupuncture and moxibustion styles, Dr. Kobiashi 1988-1989
Vega diagnostics, Drs. Roy Martina, Walter Sturm 1987-1992
Pre-Med studies, Santa Monica College, Santa Monica, Ca. 1981-1983
Homeopathic and Herbal studies, Jim Blechman, M.D. 1981-1982
Jin Shin Do, moxibustion and Tonic Herbs, Ron Teeguarden 1979-1981
Santa Monica School of Massage, 1977-1983
Neo-Reichian studies at the Radix Institute, Orthobionomy levels 1 & 2, Postural Integration, Shiatsu, Reiki - 1st, 2nd and 3rd degrees

Licensure and Certification

DiplOM NCCAOM 2006
License to practice acupuncture in Texas 2006
Advanced Cardiac Life Support Systems (ACLS) 2005
License to practice Acupuncture in Massachusetts 1991
License to practice Acupuncture in California 1987
Dipl. Ac., NCCAOM 1985
Reiki Master Teacher with LA Reiki Center 1984

Organizations and Affiliations

Founding Research Associate, CIIS Center for Creative Transformation 2008
Texas Association of Acupuncture and Oriental Medicine – Vice President 2008
Academic Consortium for Complementary and Alternative Health Care (ACCAHC) HSCP portable competencies group 2007
National Educational Dialogue 2005 - 2006
AAOM President 2004 – 2006
AAOM Secretary 2002 - 2004
Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM) 2004 – Present
Doctoral Task Force
ACAOM Site Visit Team Chair 2004 – Present
CSOMA 2001 - Present
Massachusetts Acupuncture Society 1991 - 1998
American Herbal Guild Professional Member 2000-present
Massachusetts Acupuncture Committee – Herbal Training Requirements Advisory Board 1994-1996
California Acupuncture Association BOD 1987-1991

Organizational Development, Visioning and Strategic Planning

North West AOM State association strategic planning event 2008
AOMA strategic planning, vision and mission 2008
AOMA strategic planning, vision and mission 2007
AOMA strategic planning, vision and facilitated new mission statement 2006
AAAOM mission and strategic planning event 2006
CONNEXUS electronic forum for organizational development 2006
SAMRA strategic planning event leading to doctoral approval by ACAOM2005
AAAOM visioning and strategic planning event 2005
CONNEXUS electronic forum for organizational development 2005
AAAOM strategic planning event 2004
AAAOM visioning and strategic planning event 2003

Publications

American Acupuncturist

Nan Jing Chapter One Analysis, Commentary and Application 2007
Nomenclature debates 2006
Ten Strange Pulses with Young Wei Jieh and Christine Chang 2006
Eight Extraordinary Pulses and Birth Trauma 2005
Commentary for APA guidelines on acupuncture and psychiatric diseases 2005

Appendix

Editorial – Chinese Herbal Medicine (Chen) 2004
Editorial – Foundations of Chinese Medicine (Maciocia) 2004
Pulse Diagnosis, Unraveling the Mysteries of 2004
Nan Jing Chapter Five
Pulse Diagnosis: A Multi Dimensional Method of 2003
Pulse Balancing
Arrhythmias and Palpitations, *California Journal of Oriental Medicine* 2003
Drug-Herb Interactions, 2001
World Futures
Book review, *Chinese medicine in early communist China, 1945-63, a medicine of revolution* by Kim Taylor. 2007
Forward, *Running a Safe and Successful Acupuncture Clinic,* Hong Zhen Zhu 2005
Far East Summit Newsletter
Xue Fu Zhu Yu Tang, 2003
Xiao Chai Hu Tang 2003
Acupuncture Today 2001-Present
Shen Harmony: The Normal Mental Condition in Chinese Medicine, Part 1&2 2008
AOM Education, Critical Thought and Complexity 2008
Deep Change: Leadership and Education in Chinese Medicine 2008
Specialties: A Not-So-Quiet Storm 2007
Is Asian more Pejorative than Oriental? 2007
An Interview With Zhongyuan Zhang, CCP Secretary of Chengdu University 2007
Pulse Diagnosis, The Ying Qi Cycle 2003
Pulse Diagnosis and the Compass Method 2003
Pulse Diagnosis of the Night-time Wei Qi Cycle 2002
Neoclassical Pulse Diagnosis and the Six Channels 2002
Eight Extra Pulse Diagnosis a Path to Effective Treatment 2001
Rolling from Primary Positions: Seeking the Truth 2001
Reiki, Hands That Heal, Weiser (Co-author) 1997
Sheng Chang Pharmaceuticals product support literature:
Systemic Lupus Erythematosus: Diagnosis and Treatment 1993
Urinary Calculi 1993
Organoleptic and Phytochemical Energetics 1991
Raynauds 1989
Parasites 1988
Benign Prostatic Hypertrophy, Treatment with TCM 1990
Panic Disorder 1991
Diabetes East-West, summer 1992
Treatment of Gastritis with TCM 1994
Treatment of Lower Bowel Disorders with TCM 1995

Presentations
UT Guest lecturer, Interdisciplinary Seminar in Psychosocial Oncology 2008
AAAOM – Wang's Six Channel Pulses, Existentialism and Dong 2008
AOMA *Mai Dao* – Path of the Pulse series 2008
American Botanical Council – Chinese medicinals in the ABC garden 2008
University of Illinois: Ethics, Evidence and Social Justice, Power of assumption 2008
TAI SOPHIA *Shang Han Lun* 2007
The 8 Pulse Diagnosis System of Wang, New Orleans AAAOM conference 2007
Texas House Committee for Public Health 2007
University of Texas, guest lecture on AOM for information systems program 2007
Southwest Symposium, Western Pathophysiology of *Shang Han Lun* 2007
Situational Leadership at USC Innovations in Medical Education 2007
AAOM – Chaired Panel on Nomenclature Debate 2006
University of Texas, guest lecture on AOM for information systems program 2006
Ohio State Assembly on Health and Human Services 2006
United States Department of Education (testimony in support of ACAOM) 2005
AAOM Annual Conference State of the Field 2005
USC Physical Therapy Department 2005
TAI SOPHIA *Shang Han Lun* 2005
USC Innovations in Medical Education on 2005
Development of a Clinical Specialty Doctorate in AOMA
National Institute of Health Committee on CAM professions 2005
AAOM Wang's Eight Extra Vessel Pulse System 2004
Little Hoover Commission review of Acupuncture 2004
CSOMA Neoclassical Pulse Diagnosis 2004
USC New Approaches in Medical Education 2004
USC Innovations in Medical Education 2004
Emotional Intelligence through a Film Triptych of Great Leaders 2004
USC Innovations in Medical Education 2004
The Effect of (PENS) training on Student Confidence, Skills and Satisfaction
Academy of Oriental Medicine at Austin (Pulse Diagnosis) 2001-Present

Vitalism Faculty: Biographies and Curriculum Vitae

CSOMA TCM treatment of Allergies, Colds, and Flus 2003
Academy of Oriental Medicine at Austin, TX 2002-2004
Guest lecturer
UCLA Master's of Public Health Program 2002
Use of Acupuncture in Public Health Settings
USC School of Medicine Introduction to Clinical Medicine OM rotation 2002 – 2005
East West College of Natural Medicine 2001- 2005
Guest lecturer, Sarasota, FL 34236
Five Branches Institute 2001
Guest lecturer Santa Cruz, CA
UC Irvine – Medical School Program on CAM 2001
CSOMA Pulse Systems of Wang Shu He and Latent Heat 2001
AAOM Treatment of Knotty Diseases 2000
Williams College premed course on Oriental Medicine 1996
Connecticut Institute of Herbal Studies herb program 1996
Contemporary Pulse Diagnosis Co-teacher with Leon Hammer 1993 -2000
Berkshires, MA, New York, NY, San Francisco, CA, Washington, DC,
Asheville, NC, Los Angeles, CA
MAAOM and FSAOM two-year herb programs 1994-1998 qualifying for NCCAOM and State requirements
AAAOM Conference 1993
Treatment of Systemic Lupus Erythematosus
New England School of Acupuncture 1993-1998
Treatment of Cancer with Chinese Herbs
Clinical Management of Autoimmune Disorders
Clinical Management of Diabetes
Clinical Management of Multiple Sclerosis
Emperor's College
Director manual therapies training program 1990-1991
Five Phases 1990-1991
Pathophysiology and Physiology board review 1985-1986

Continuing Education
Southwest Symposium 2007
The Evolution of Chinese Medicine: Lonny Jarrett
Traditional Chinese Medicine and Pregnancy: Raven Lang
TCM In The Trenches –
Twenty-Five Years of Clinical Experience: Janet Zand
Myth of the Resistant Patient: Lorena Monda
Five Pediatric Types: Identity, Diagnosis and Treatment: Harriet Beinfield & Efrem Korngold
Recognition & Prevention of Herb-Drug Interaction: John Chen
Ethics: Jimmie Coombes
Acupuncture, Chinese Herbs and the Treatment of Breast Cancer: Yuxin He
Treatment of Depression and Anxiety with Acupuncture: Rosa Schnyer
David Twicken, *I Ching* Acupuncture 2006
Giovani Maciocia – Dampness 2006
Victor Sierpina - Integrative Medicine 2006
Erqiang Li – Acupuncture Techniques 2006
Doctoral Program in Pain Management 2004-2006
Leadership Fellowship USC 2003-2004
Yang Maiqing - Shang Han Lun 2001
Dermatology under Dr. Gu Neiqiang 2001
Pulse Diagnosis, Leon Hammer, M.D. and John HF Shen March 2000
AAOM conference 2003
CSOMA conference 2003
Breast disease, Neiqiang Gu; Herb panel, Brian Fennen; Shaping our Professional Future, Adam Burke; Asthma, Colds and Flus, Will Morris
The Historical Developments of Chinese Medicine, Paul Unschuld Ph.D. 2003
Professional Accomplishments
Led AOMA to candidacy status with the Southern Association of Colleges and Schools 2008
Led AOMA to THECB renewal of authorization to grant the master degree 2007, 2009
Developed and implemented the Institutional Review Board for AOMA 2006
Led and facilitated the merger of two national professional associations 2007
(American Association of Oriental Medicine and the Alliance of Acupuncture
and Oriental Medicine), split since 1993 they are now the American Association
of Acupuncture and Oriental Medicine (AAAOM).
Led SAMRA Universities' Doctorate of Acupuncture and Oriental Medicine 2005
(DAOM) development team to a successful submission and approval.
The program starts in Spring of 2007
Developed and implemented the Institutional Review Board for Emperor's College 2004
Served on Emperor's College DAOM development team and directed the program 2001-2005 with Julie Nyquist, PhD.

David B. Koch, DC, LCP, DPhCS

2831 E. 18TH STREET DAVENPORT, IA 52803
563.359.8961 home 864.706.7627 mobile DAVIDKOCH-

Appendix

DC@MCHSI.COM

CHIROPRACTIC LICENSE

SCBCE License #827 (active)
GBCE License #CHIR008028 (active)

Education

1967 - 1970 Wayne Hills High School, Wayne, NJ (diploma, valedictorian)
1970 National Merit Scholar
1970 - 1972 New College, Sarasota, FL (undergraduate)
1973 - 1974 Gamma School of Massage, San Francisco, CA (massage certification)
1975 - 1976 Tompkins-Cortland Community College, Dreyden, NY (undergraduate/pre-requisites)
1977 - 1980 Sherman College of Straight Chiropractic (SCSC), Spartanburg, SC – Doctor of Chiropractic degree
2002 Palmer Institute for Professional Advancement (PIPA) – Legion of Chiropractic Philosophers certificate (LCP)
2002-2005 PIPA – Diplomate in Philosophic Chiropractic Standards (DPhCS) program
2005 ICA Council on Chiropractic Philosophy – DPhCS diplomate

Employment

1979 - 1980 Instructor of philosophy, Chiropractic Assistant program, SCSC
1980 - 1983 Instructor of philosophy, spinal anatomy, SCSC
1981 - 1995 Private practice of chiropractic, Spartanburg, SC
1981 - 2000 Chairman of the Philosophy Department, SCSC
1981 Spinal Anatomy Test Selection Committee, NBCE
1982 Spinal Anatomy Test Selection Committee, NBCE
1984 - 1987 Assistant Professor of philosophy, spinal anatomy, spinal biodynamics, radiographic anatomy and x-ray physics, SCSC
1988 - 1992 Associate Professor of philosophy, spinal anatomy, spinal biodynamics, radiographic anatomy, SCSC
1988 - 1993 Faculty Representative, Academic Affairs Committee, SCSC
1993 - 1995 Professor of philosophy, spinal anatomy, spinal biodynamics, SCSC
1994 - 1995 Faculty Representative, Administrative Council, SCSC
1994 National Board Part IV Test Development Workshop, NBCE
1995 - 2001 Professor of philosophy, SCSC
1996 Senior Vice President, SCSC
1997 - 2000 President, SCSC
2001 - 2005 Professor of philosophy, Palmer College of Chiropractic (PCC)
2001 - 2002 Special Assistant to the President, PCC
2002 - 2005 Vice President for Professional and International Affairs, Palmer Chiropractic University System
2006 - Professor of philosophy, Life University College of Chiropractic

Conferences, Presentations, Seminars

1981 - 2005 Numerous Lyceum/Homecoming presentations on Chiropractic Philosophy at McTimoneyCC, NWCC, NZCC, PCC, PCCW, SCSC
1981 - 2005 Numerous seminars (2 – 8 hours) on Chiropractic Philosophy at LifeCC, LCCW, McTimoneyCC, NYCC, NZCC, PCC, PCCF, and SCSC, and in Australia, FL, MA, NH, New Zealand, OH, SC, and VA
1981 - 2005 Participation/presentations at numerous annual chiropractic conferences including ACC, RAC, ECU, CAA, WFC, FCLB, IRAPS, ICA/CCP, and at the annual General Assembly of the WHO
2000 Co-Program Director, WFC/ACC/NBCE Conference on Philosophy in Chiropractic Education, Fort Lauderdale, FL, November 10-13, 2000
2002 - 2005 Presenter on the Thirty Three Principles and thesis evaluator/Grand Rounds Mentor, LCP program, PIPA, Davenport, IA
2003 - 2004 Presenter on advanced chiropractic philosophic topics, DPhCS program, PIPA, Davenport, IA
2004 - 2005 Identity Task Force Member, WFC Consultation on Identity, LCCW Hayward, California

Memberships

1979 - 2001 Federation of Straight Chiropractors and Organizations (FSCO)
1985 - 1999 Spartan Lodge #70 AFM
1990 - 1992 International Chiropractors Association (ICA)
1991 - 1993 Board of Directors, FSCO
2002 - Association for the History of Chiropractic (AHC)
2002 - Loyal Legion of Chiropractic Philosophers (LLCP)
2003 - ICA Council on Chiropractic Philosophy (CCP) (charter member)

Publications

1981 - 1999 Numerous publications, *Straight from Sherman,* SCSC, Spartanburg, SC
1981 - 1983 "Straight Quotient" series, *Straight from Sherman,* SCSC, Spartanburg, SC
1985 *C. A. S. E. History*

Vitalism Faculty: Biographies and Curriculum Vitae

1992 *Practice Guidelines for Straight Chiropractic,* Proceedings of the International Straight Chiropractic Consensus Conference, Chandler, AZ (co-author)
1995 The Redefinition of Vertebral Subluxation, *The Journal of Straight Chiropractic*, Levittown, PA, 1995
1996 Vitalism, a Help or a Hindrance to the Art and Science of Chiropractic, *The Journal of Chiropractic Humanities,* Lombard, IL, 1996
1998-1999 "Principles of Straight Chiropractic" series, *Straight from Sherman,* SCSC, Spartanburg, SC
2000 The Philosophic Basis of Vertebral Subluxation-Centered Practice, *Proceedings from a Conference on* Philosophy in Chiropractic Education, WFC/ACC/NBCE, Fort Lauderdale, FL
2001 First in This Philosophic Dialogue, Let's CHANGE OUR VOCABULARY!, *Streams From The Fountainhead,* PCC,Davenport, IA
2002 It Takes Two to Tango, *Streams From The Fountainhead,* PCC, Davenport, IA, (co-author)
2002 We Need to Stop Bashing Medicine, *Streams From The Fountainhead,* PCC, Davenport, IA
2003 Diagnosis: It's Time to Clarify the Term, *Streams From The Fountainhead,* PCC, Davenport, IA
2003 The Thirty Three Principles of Chiropractic, *Streams From The Fountainhead,* PCC, Davenport, IA
2003 The Normal Complete Cycle, A Deductive Elaboration of R. W. Stephenson's Metaphysical Model of Neurophysiological Function Based on the Assumption of the Existence and Operation of a System-Wide, Immaterial Intelligence, *Philosophical Contemplations – Viewpoints on Chiropractic Philosophy,* Vol. 3, PIPA, Davenport, IA
2004 Ethics (The Normalcy of Innate Intelligence), *The Philosopher's Quill*, ICA/CCP/LLCP, Vol. 2, No. 1
2004 Ethics (The Philosophic Centrality of the Concept of Force), *The Philosopher's Quill*, ICA/CCP/LLCP, Vol. 2, No. 2
2007 The Broader Applicability of Modern Chiropractic Principles, *Today's Chiropractic Lifestyle*, April/May 2007

Yvonne G. Villanueva-Russell, PhD

Curriculum Vitae

Office
Department of Sociology & Criminal Justice
Social Sciences 213
PO Box 3011
Texas A&M University – Commerce
eyruss@embarqmail.com
Commerce, TX 75429
Phone: (903) 886-5320
Fax: (903) 886-5330
Email: Yvonne_VRussell@tamu-commerce.edu

Home
3084 Woodglen Drive
Commerce, TX 74528
(903) 886-6432

Present Position
Associate Professor of Sociology & Department Head, Texas A&M University – Commerce. 2008-present.

Employment History
Assistant Professor of Sociology, Texas A&M University – Commerce, 2002-2008
Adjunct Instructor. Quincy University, Quincy, Illinois. 1999-2002.
Graduate Instructor. University of Missouri – Columbia. 1996 – 1998.
Adjunct Instructor. Spoon River College, Macomb, Illinois and Rushville, Illinois campuses. 1992 – 1997.

Education
Ph.D. (Sociology). 2002. University of Missouri – Columbia.
Title of dissertation: On the Margins of the System of Professions: Professionalism and Entrepreneurialism in As Forces Upon and Within Chiropractic. [Dissertation committee: Andrew Twaddle, chair; J. Kenneth Benson; Peter Hall; James Campbell]
Comprehensive exams completed 1996. Areas of specialization:
Organizations, Occupations and Professions (high pass)
Theory and Methodology
Case Western Reserve University, Cleveland, OH. Attended fall semester on a NIH Predoctoral Fellowship. 1992.
M.A. (Sociology) 1992. Western Illinois University. Macomb, Illinois. Title of Thesis: The Influence of Perceived Formalization on Nurses' Perceptions of Senile Dementia.
B.A. (Sociology) 1990. Western Illinois University. Macomb, Illinois. Magna Cum Laude.

Honors And Awards
Nomination: Mini Stevens Piper Award for Teaching. Texas A&M University – Commerce, October, 2007
Honor's Professor of the Year, Texas A&M University – Commerce, April, 2005
Phi Eta Sigma National Honor Society, Texas A&M University –

Appendix

Commerce, April, 2005
Paul W. Barrus Distinguished Faculty Award for Teaching, Texas A&M University – Commerce, April, 2004
Alpha Kappa Delta, International Honors Society in Sociology, Texas A&M University – Commerce, August, 2002
Thurgood Marshall Fellowship, University of Missouri – Columbia. 1993-1997.
National Institutes of Health Predoctoral Fellowship. Case Western Reserve University, Fall 1992

Teaching Interests:
Medical Sociology; Sociological Theory (both classical and contemporary); Deviant Behavior; Work, Occupations and Professions; Qualitative Methodology; Introduction to Sociology

Research Interests:
The professionalization of alternative medicine; history of medicine; medical deviance; deviant behavior; sociology of science; sociology of professions; sociology of knowledge

Publications
"Chiropractors as Folk Devils: Published and Unpublished Coverage of a Moral Panic." 2009. Deviant Behavior. 30: 1-26.
"An Ideal-Typical Development of Chiropractic, 1895-1961: Pursuing Professional Ends Through Entrepreneurial Means." 2008. Social Theory and Health. 6:250-272.
"Alternative Medicine: From 'Quackery' to 'Integrative'" Research Note in Thompson, William and Joseph Hickey. 2007. Society in Focus: An Introduction to Sociology (6th edition). Pp. 538, 539 . Boston: Allyn and Bacon.
"Early Advertising and Practice Building in Chiropractic: 1920-1950." 2006. Chiropractic History. 26(2): 35-47.
"Evidence-Based Medicine and Its Implications for the Profession of Chiropractic." 2005. Social Science and Medicine. 60(3): 545-561.
"The AMA versus Chiropractic: Themes of Opposition From 1963 to 1974." ICA Review. 2001. June: 14-20.
"Gynecological Neurologists and Other Lessons of History." 2000. ICA Review. 56(2): 21-24.

Work In Progress
Villanueva-Russell, Yvonne, Chris Myers and Asli Ogunc. 2008. "Cardiovascular Disease Risk Among College Students: Clinical, Lifestyle and Ethnicity as Factors" (submitted to *Journal of American College Health*, 8/28/2008)
"Subethnic disparities in Cardiovascular Disease: The Influence of Acculturation and Quality of Care" [in progress; co-authored with graduate student Sarah-Jean Bell, Chris Myers and Asli Ogunc]
"Refusing Childhood Vaccinations: Understanding How "Evidence" Is Applied to Make Decisions and Account For Them." [currently undergoing IRB approval]

Grant Writing
"Canadian Newspaper Coverage of a Moral Panic" $360 mini grant funded through the Graduate School, Texas A&M University – Commerce, May, 2007
"Subethnic Disparities in Cardiovascular Disease" with Chris Myers, Department of Marketing; $600 mini grant funded through the Graduate School, Texas A&M University – Commerce, October, 2006.

Academic Conference Presentations
"Subethnic Disparities in Cardiovascular Disease: The Influence of Acculturation and Quality of Care" March, 2008. Southwest Social Science Association Meetings, Las Vegas, NV.
"Chiropractors Kill! An Analysis of the Minipanic Surrounding Stroke and Cervical Adjustments in Ontario and Connecticut." March, 2007. Southwest Social Science Association Meetings, Albuquerque, NM.
"Above-Down, Inside Out: Adaptation and Professional Identity." November 2006. International Research and Philosophy Symposium. Spartanburg, SC.
"Evidence-Based Medicine and Its Implications for the Profession of Chiropractic." March, 2005. Plenary Speaker. Association of Chiropractic Colleges Annual Research Agenda Conference. Las Vegas, Nevada.
"Evidence-Based Medicine and Its Implications for the Profession of Chiropractic." October, 2001. Mid-South Sociological Society. Nashville, Tennessee.
"Evidence-Based Medicine and Its Implications for the Profession of Chiropractic." 2002. Confederation of the Arts and Sciences , Texas A&M University – Commerce.

Keynote, Plenary And Invited Speaking
(an abbreviated list)
"Measuring the Unmeasurable: Towards a Scientific Vitalism" April 2009. Keynote Speaker. *Vis Medicatrix Naturae*--Stewardship of the Source of Health Conference, Life College of Chiropractic, Atlanta, Georgia.
"Swimming with the Sharks: The Consequences of Professionalizing Alternative Medicine." September 2007. Invited Speaker, New Zealand College of Chiropractic, Auckland, New Zealand.
"Swimming with the Sharks: The Consequences of Professionalizing Alternative Medicine." May 2007. Invited Speaker, Sherman Straight College of Chiropractic, Spartanburg, South Carolina.

Vitalism Faculty: Biographies and Curriculum Vitae

"The Sociology of Professions & Professionalism." July 2006. Keynote Speaker, McTimoney Chiropractic Association [MCA] Conference. Basingstoke, England.
"Evidence-Based Medicine and Its Implications for the Profession of Chiropractic." Plenary Speaker. April, 2006. Canadian Awareness Council [CAC] Spring Conference. Niagara-On-The-Lake, Ontario, Canada.
"What Role Does Philosophy Play in Current Identity Projects?" Plenary Speaker. November, 2005. International Chiropractors Association [ICA] Conference on Philosophical Standards, Fort Worth, Texas.
"Sociology and the Chiropractic Model." September, 2005. Invited Speaker; License Renewal Seminar. Palmer College of Chiropractic. Davenport, IA.
"The Role of Chiropractic Philosophy in the Future of the Profession." August, 2005. Invited Speaker. Palmer College of Chiropractic Homecoming. Davenport, Iowa.
"Thomas Kuhn's *The Structure of Scientific Revolutions*" January, 2005. Invited Lecture, Diplomate in Chiropractic Philosophical Standards. Palmer College of Chiropractic, Davenport, IA

Teaching Experience
Autonomous Teaching at the Undergraduate Level [listed in alphabetical order]:
Deviant Behavior, Texas A&M University – Commerce. Fall 2002 – Fall 2008
Global Social Issues, Texas A&M University – Commerce. Fall, 2002
Introduction to Sociology, Texas A&M University – Commerce. Spring 2003-Spring 2007 [Honors section Fall 2007]
Introduction to Social Research, Texas A&M University – Commerce. Fall 2002, Spring 2003, Spring 2005
Sociology of Complex Organizations, Texas A&M University – Commerce. Fall 2005; Spring 2007, Spring 2008
Social Problems, Texas A&M University – Commerce. Summer 2003
Sociological Theory, Texas A&M University – Commerce. Fall 2003; Fall 2004 Spring 2005; Fall 2005; Fall 2006; Spring 2007, Fall 2007, Spring 2008
Special Topics: Sociology of Health and Illness, Texas A&M University – Commerce. Summer 2005; Summer 2006; Fall 2007
Autonomous Teaching at the Graduate Level [listed in alphabetical order]: Classical Sociological Theory, Texas A&M University – Commerce. Spring 2004; Spring 2006
Contemporary Sociological Theory, Texas A&M University – Commerce. Spring 2007, Fall 2008
Medical Sociology, Texas A&M University – Commerce Summer 2004, Summer 2006, Summer 2008
Seminar in Qualitative Methodology, Texas A&M University – Commerce. [taught as independent study course] Spring 2004

Co-Teaching
Modern Work. Co-taught with Dr. Michael Smith, department of Psychology, Quincy University. Summer 2001.

Community And Professional Service
Master's Thesis Advisor
Katherine Lind "Maintaining A Collectivity Orientation in a Hippie Commune" anticipated graduation date: May, 2009
Amy Donovan. "Attachment Parenting: A Qualitative Study" anticipated graduation date: December 2005.
Sociology Non-Thesis Option Advisor
Sarah-Jean Bell. "SPSS student-friendly manual." Draduation date: December 2008.
Vanessa Madden. "Prison Warden's Attitudes Towards Organ Donation by Inmates." Anticipated graduation date: May 2008.
Elizabeth Barnhart. "The Social Construction of Social Class and Infertility." Anticipated graduation date: May 2006.

Undergraduate Honor's Thesis advisor
Raymond Gathright: "Preventing the Consequences of Stigma in Mental Illness" Anticipated graduation date: May , 2009.
Tiffanie Pelton: "A Comparison of Media Versus Academic Images of Suicide Terrorists." Graduation date: December , 2008.
Melissa Loibl: "The Integration of Social Capital as a Construct of the Antecedent Stage of the Volunteer Process Model" [Student completed data collection, but did not defend completed thesis.] 2005
Steve Moffitt: "The Devil and Deviantization of Damien Echols and the West Memphis Three." Graduation date: May, 2004

Outside committee member on master's theses or doctoral dissertations
Sonja Andrus: Literature and Languages (Dr. Donna Dunbar-Odum, Chair)
Tony McGary: Health and Human Performance (Dr. Quihn Dang, Chair)
Marcy Kent: Health and Human Performance (Dr. Serge Von Duilliard, Chair)

Texas Performance Standards Project
Bailey Hime: Detroit, Texas High School. Senior project on fashion and modesty. [August – May, 2007]
Service to the University
Advisory Council Member, University Honor's Program. Texas A&M University – Commerce. 2003-present
Advisory Council Member, Mayo College[freshman residential

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community]. Texas A&M University – Commerce. 2007-present.
Advisory Council Member, Freshman Success Seminar. Texas A&M University – Commerce. 2008-present.
Chair, Mayo Undergraduate Scholarship Committee. Texas A&M University – Commerce. 2004-present. (Have served as chair of the committee since Spring 2008)
Faculty Advisor, Kappa Delta Chi Sorority. Texas A&M University- Commerce. 2007- present.
Committee Member, Dean of College of Arts and Science Position Search. Texas A&M University – Commerce, 2008-2009.
Committee Member, Faculty Senate Awards Committee. Texas A&M University – Commerce 2004-2007
Outside Committee Member, Political Science Assistant Professor Search. Texas A&M – Commerce. 2006-2007.
Committee Member, Library Director Search. Texas A&M University – Commerce. 2005-2006.
Induction Speaker, Phi Eta Sigma National Honor Society, Texas A&M University – Commerce, April 18, 2005
"Excellence in Education," Marketing & recruiting video for Texas A&M University – Commerce by Pat Summeral Productions, September 2003. {My class lecture and students were videotaped and featured as one of the backgrounds to the video describing the university}
Faculty Advisor, Eta Omicron Nu, Texas A&M University – Commerce, 2003-2005.
Committee Member, Interdisciplinary Animal-Human Interaction Minor. Texas A&M University – Commerce, 2002.

Service to the Department
Undergraduate Sociology Advisor, Texas A&M University – Commerce, 2002-present
Director of Graduate Studies, Texas A&M University – Commerce, 2008 - present.
Chair, Departmental Human Subjects Protection Committee, Texas A&M University –
Commerce, 2007 – present.
Chair, Criminal Justice Search Committee, Texas A&M University – Commerce, 2007-2008.
Chair, Search Committee, Department of Sociology & Criminal Justice, Texas A&M University – Commerce. [Sociology Search] 2004-2005.
Committee Member, Search Committee, Department of Sociology & Criminal Justice, Texas A&M University – Commerce. [Criminal Justice Search] 2007.
Committee Member, Search Committee, Department of Sociology & Criminal Justice, Texas A&M University – Commerce. [Criminal Justice Search] 2006-2007.
Committee Member, Search Committee, Department of Sociology & Criminal Justice, Texas A&M University – Commerce. [Criminal Justice Search] 2003-2004.
Faculty Co-Advisor, Sociology and Criminal Justice Society (SACS), Texas A&M University – Commerce, 2002-2008
Faculty Co-Advisor, Alpha Kappa Delta (AKD). Texas A&M University – Commerce, 2002-2008
Library Coordinator, Department of Sociology & Criminal Justice, Texas A&M University – Commerce, 2002-2005.
Service to the Profession
Editorial Board, The Sherman Review: A Journal of the Philosophy, Science and Art of Chiropractic. 2006 – present.
Editorial Board, Chiropractic History. 2005 - present.
Reviewer, Social Science and Medicine. 2005 - present.
Reviewer, Chiropractic History. 2005 – present.

Service to the Community
Member, United Way of Commerce Board of Directors, Commerce, Texas. 2007 – present.
Member, PTA. AC Williams Intermediate School, Commerce, Texas. 2006-present

References
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