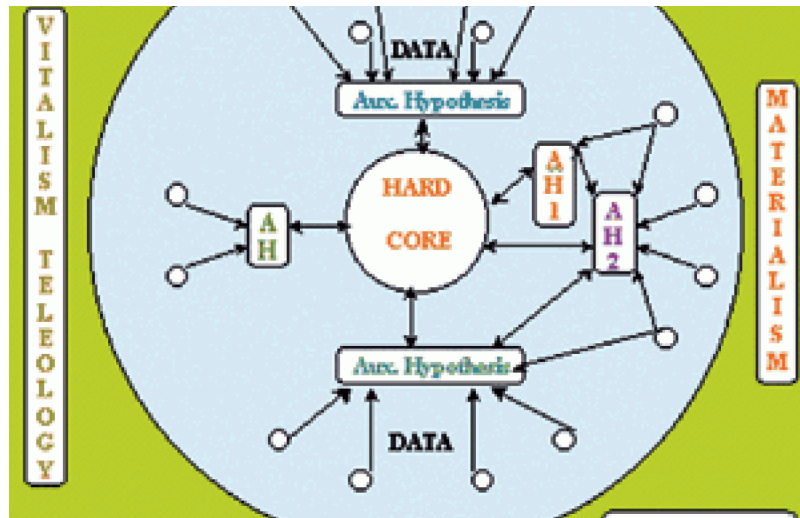


Dynamic Chiropractic



CHIROPRACTIC (GENERAL)

Philosophy - Research Programs & Clinical Experience

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The contention that subluxation are the core premise of chiropractic is historically dubious and, in our opinion, philosophically unjustifiable, factually inappropriate and a potential disaster for the future of practicing chiropractors. Persons subscribing to that position should either modify their stance, stand behind other chiropractors of a different position, or file for a divorce.

It needs to be remembered that neither of the Palmers introduced the term "subluxation." That term was coined by Solon Langworthy and did not become part of the Palmer lexicon until B.J. Palmer borrowed the expression in 1907, following the Morikubo trial (see www.chiroweb.com/archives/16/17/07.html or Wardwell, Fn. 1, p. 67). We should all be reminded that state and federal laws prohibit discrimination: For example: Section 16 of the California Chiropractic Act forbids discrimination "against any particular school of chiropractic, or any other treatment."

Figure 1: *Various disciplines, from Kant to Reikeman*
D.D. Palmer, DC

"The human body is a machine..." (1899 - See Wardwell, fn. 1, p. 58)

"Its (chiropractic's) science is based on tone. Tone is the standard from which we note the variations of structure, temperature, tonicity, elasticity, renitency (resistance) and tension; it is the standard of health; and deviation therefrom is disease. Tone is the basic principle, the one from which all other principles, which compose the science, have sprung." (1913 - See Maynard, fn. 1, p. 224 - emphasis in original.)

"The science of chiropractic is in no way related to the science of machinery. Its phenomena are dependent upon vital force." (1913, fn. 1, p. 236)

"...Disease is a disturbed condition, not a thing or enmity. Disease is abnormal performance of certain functions... a change in the amount of energy and function performed." (D.D. 1910 - Wardwell, fn. 1, p. 58)

Guy Riekeman, DC "...the core premise of chiropractic (is) the subluxation..." (2001, fn. 1)

ACC Core Principle - 1996 "The body's innate recuperative power is affected by and integrated through the nervous system." (See fn. 1. The ACC also emphasizes "subluxation.")

Kant & 19th-Century German Biology

"...Kant argued that the life sciences must ultimately rest on an explanatory framework uniting principles of both teleology (purposeful) and mechanism.... (This research tradition) has not become part of the main body of the history of biology (or mainstream medicine) for two reasons: First, very few recent historians have attempted to understand fully the nature of teleological explanations and its heuristic power (stimulative of research) in biology; ... The emphasis on Darwin is in large part responsible for the fact that we have overlooked a significant, valid alternative approach to biological phenomena . . . Darwin, it is well known, struggled long and hard to establish materialistic principles of analysis and natural mechanisms that would enable him to escape vitalistic or teleological notions, such as perfect adaptation of the organism to its environment or the argument from design." (1982, Lenoir, fn. 1)

We intend to justify our statement with respect to subluxation in this article. We also intend to suggest a slight, but important modification relative to the claimed "recuperative" function of the nervous system. We will once again turn to the German scientific tradition for guidance, and look at the philosophy of science developed by the Cambridge scholar Imre Lakotas, the leading philosopher of science during the latter half of the 20th century.

We will also be guided by D.D. Palmer's willingness to openly adjust his position as new data emerged, and as his understanding of the healing process developed (Fig. 1). Present day chiropractors should be equally amenable to change. D.D. lived through an era of great change in the ideas related to science, religion, philosophy and the practice of medicine. We live in a similarly changing world, and these subjects are once again on the table. In addition, we will look to some of D.D.'s core concepts for guidance: tone; vibration; tissue function; energy; feedback loops (Maynard, p. 231); and the concept of disease as a "disturbed condition."

The quotation from Lenoir (Fig. 1) points out that materialism and Darwinism, its handmaiden, have been central features of the history of biology since the 1860s. Metaphysical materialism is still with us, like it or not. One graphic example may be found by a quick review of some of the persons associated with the *Scientific Review of Alternative Medicine (SRAM)*. Sir Francis Crick, Nobel laureate, is a charter member of this journal's Council for Scientific Medicine (CSM). In

discussing the materialistic, reductionistic attitude of Sir Francis, author Ian Barbour stated:

"Francis Crick, the co-discoverer of the structure of DNA, has written: 'Thus, eventually, one may hope to have the whole of biology explained in terms of the level below it, and so on down to the atomic level. ... The knowledge we have already makes it highly unlikely that there is anything that cannot be explained by physics and chemistry.'"²

So speaks the faith of Sir Francis, a true died-in-the-wool materialist. So be it, so long as he does not require everybody else to wear the *bhurka* of his making.

Let's go a little further with the *SRAM*. One of the other CSM members is Anthony Flew. He is one of the world's leading atheistic philosophers, and one of his most definitive writings is *The Presumption of Atheism*. A lead article in the first volume of the *Scientific Review* journal was written by Victor Stenger, well known for his book, *Not by Design*. (The infamous "quackbuster," Stephen Barrett, is also a contributing editor.)

Each of the referenced persons utilizes Darwin as a cornerstone of the claimed right to monopolize the marketplace of ideas. But, as stated in Lenoir's quotation (Fig. 1): "The emphasis on Darwin is in large part responsible for the fact that we have overlooked a significant, valid alternative (scientific) approach to biological phenomena." We will address this "alternative approach" and tie it in with the concept of the body's inherent "physioregulatory" system.³ First, we will outline our basic, personal conclusions, with respect to Darwinian evolution:

1. Darwinian evolution is, in part, a philosophical, metaphysical concept. As such, it should not be granted any legal primacy over other metaphysical positions, whether derived from pantheism (the biblical position); the pantheism of philosophers such as Spinoza, Goethe and Steiner; as expressed in the Taoist religion's concept of *chi*; or otherwise.
2. Evolutionary theory is directed primarily toward the ability of living things (or groups) to adapt to their environment. The extrapolation of information from that capacity to the power of self-organization (morphogenesis) goes beyond the biological data. The conclusion that evolution fully explains morphogenesis is a reiteration of a basic materialist metaphysical "faith," such as that expressed in the previous quotation from Sir Francis Crick.
3. The Darwinian theory is only a partial truth and should not be granted any kind of monopoly within biology, medicine or the classrooms of the United States. The applicable boundary limits (conditions) need to be appropriately defined.

Kant and 19th-Century Biology Self-Organization/Self-Regulation³

Let's review the work of Imre Lakotas.⁷ We state his most fundamental premise: "First, I claim that the typical descriptive unit of great scientific achievements is not an isolated hypothesis, but rather a research program."⁴ Lakotas extended his premise to include the importance of a research tradition. We will look very briefly at the research tradition stemming, in significant part, from Immanuel Kant's writing at the close of the 18th century. We suggest that D.D.'s school of chiropractic thought is either derived in part from that tradition, or otherwise falls comfortably within it.

Kant expressed several concepts that became fundamental to the development of the school of 19th-century German biology we are addressing here (Fig. 3 on page 33). We will simply summarize those concepts as expressed by Kant and his followers. We will limit the list to those ideas that have particular relevance to the position being developed in this series of articles:

1. Teleological (purposeful) relationships are a more productive means for investigating the causal relations of organic form and function than either the idea of a vital force or the contention that the body is a machine. (We will revisit the subject of "vitalism" in the section, Rationalism v. Empiricism.)
2. The whole has primacy over the parts;
3. All extant life forms are derived from a few body types that Kant called "morphotypes"; (It bears remembering that there are only about 33 basic phyla.⁵)
4. Transformation (change, evolution) takes place within the limits set by the morphotype; and
5. "Functional requirements establish boundary conditions within which the laws of physics and chemistry" operate. (Lenoir, p. 10)

The history of 19th-century German biology is instructive for an additional reason. Although the whole group of German biologists who followed the Kantian tradition felt they were working within it, there was a tendency for each generation to slightly modify its perspective. Lenoir refers to these changes by naming three schools of thought within the Kantian scientific tradition:

1. vital materialists;
2. developmental morphologists; and
3. functional morphologists.

Each of these groups focused on slightly different aspects of the ongoing research, yet each group was interested in comparative anatomy; comparative embryology; the relationship between function and form; and what we would now call morphogenesis.

We have, throughout this series of articles, repeatedly referred to the Frenchman, Claude Bernard, and his hypothesis that the nerves create a "secret harmony between the parts of the living frame"; we have pointed out the relationship between that concept and chiropractic theory, and have presented evidence of the "harmony" as a function of the whole extracellular compartment, rather than just the nervous system. (Related articles are parts 2, 3 & 5.) Though Lenoir is detailing the history of German biology, he cites Bernard as a leader within the school of "functional morphology," but does not address the implications for medical practice of Bernard's association with the school. Obviously, that association is very important in that it draws into relationship the connection between self-organization and self-regulation.

We now add the Englishman E.S. Russell to the story. Russell, in his 1916 book, *Form and Function*, captures the essence of functional morphology. A new "introduction" to a 1982 reprint of Russell's book encapsulates his basic position: "Holistic morphology ...(deals with) the unity and wholeness of the organism, the striving toward an end 'which constitutes the inner reality of life,' and the integration of form and structure...the harmony of structure and function within organisms." (p. xiv-xv)

As detailed in our prior articles, contemporary German naturopaths have expanded the concept of the "harmony of structure and function" to include a whole physioregulatory complex. Some of the world's leading research biologists are beginning to join this school of thought. These researchers are beginning to resurrect the "holistic morphology" research tradition. Their concept is arguably compatible with the proposition that "the power that makes (organizes) the body, heals it."

As with the naturopathic clinicians, these basic research biologists have moved beyond the nerves, and they include the whole "extracellular compartment" as a directing agency for morphogenesis. They tend to speak of morphogenesis in terms of "morphogenetic fields." In doing so, however, they are addressing only the issue of proximate (near, direct) causation, as opposed to ultimate causation.⁶ We will allow two major thinkers to express the relationship between morphogenesis and disease for us.

Figure 2: The power that makes (organizes) the body, heals the body "... The extracellular matrix ... makes up the morphogenetic field ... each of the cells has an excitable cytoplasm, and they communicate with one another mechanically and chemically through the extracellular matrix." - Brian Goodwin, *How the Leopard Lost Its Spots*, Simon & Schuster, 1994, p. 150.

"Pischinger states: "Organic diseases originate in dysfunctions of this system (extracellular matrix) and its connections throughout the organism."

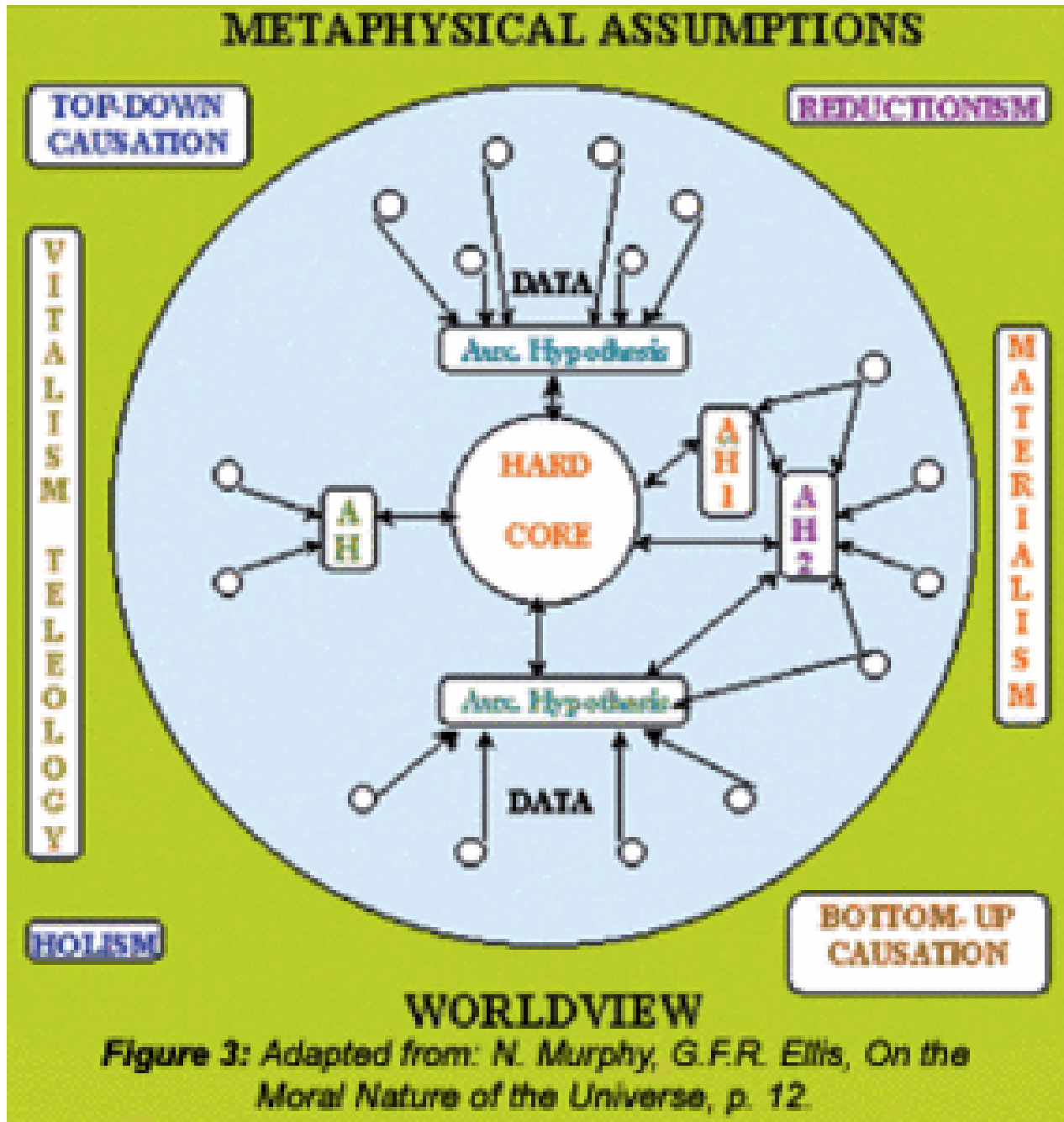
- H. Heine, *Matrix and Matrix Regulation, Basis for a Holistic Theory in Medicine*, 1991, p. 25.

Philosophy of Science

Some scientists have convinced society and the courts in the countries of the Western world that the only truly scientific position is that of the materialist. Nonsense! Materialism is merely a statement of a particular metaphysical position. The materialist position is a key factor in the rejection of "vitalism" as alluded to in Fig. 1. We will return to the subject of vitalism in the following section. First, let's look at the philosophy of science developed by Lakotas.⁷ Lakotas traces the history of the philosophy of science during the 20th century. Space does not allow us to develop the historical part of his analysis, but suffice it to say that he concludes that all knowledge (and claims relative to the ways in which the material universe, and life itself, are supposed to operate) is theory-laden; metaphysically and worldview-conditioned; limited; and fallible. He adds that scientists, therefore, need to primarily focus their attention on research programs that are fruitful, and upon theories that tend to predict "novel facts," i.e., facts or data that explain or expand upon matters not previously fully understood. Experimental corroboration must then be sought for the emerging theory.

Lakotas also points out the utility of distinguishing between the philosophical and worldview aspects of a paradigm and the scientific aspects. As presented in Fig. 3, this would mean that one should, in discussing differences between respective paradigms, distinguish between those aspects that are part of the larger box and those within the circle of science. Of course, as is obvious from the history of 19th-century German biology, metaphysical assumptions inevitably overlap, and may be considered a part of the "hard core." The key is to know when one is discussing the "box" aspects, and when one has moved "into the circle." Many disagreements that are thought to relate to science actually relate to metaphysics, or perhaps the religious beliefs affecting the particular metaphysical position. Again, we are constrained by a lack of space in which to go further with that matter.

We present the basic concepts of Lakotas in the following graphic form. Thereafter, we will briefly apply his thesis to D.D. Palmer's school of chiropractic:



The "hard core" needs to be a generalized, abstract statement of the paradigm that gives rise to the "auxiliary hypotheses" and a "research program." The auxiliary hypotheses serve two essential purposes:

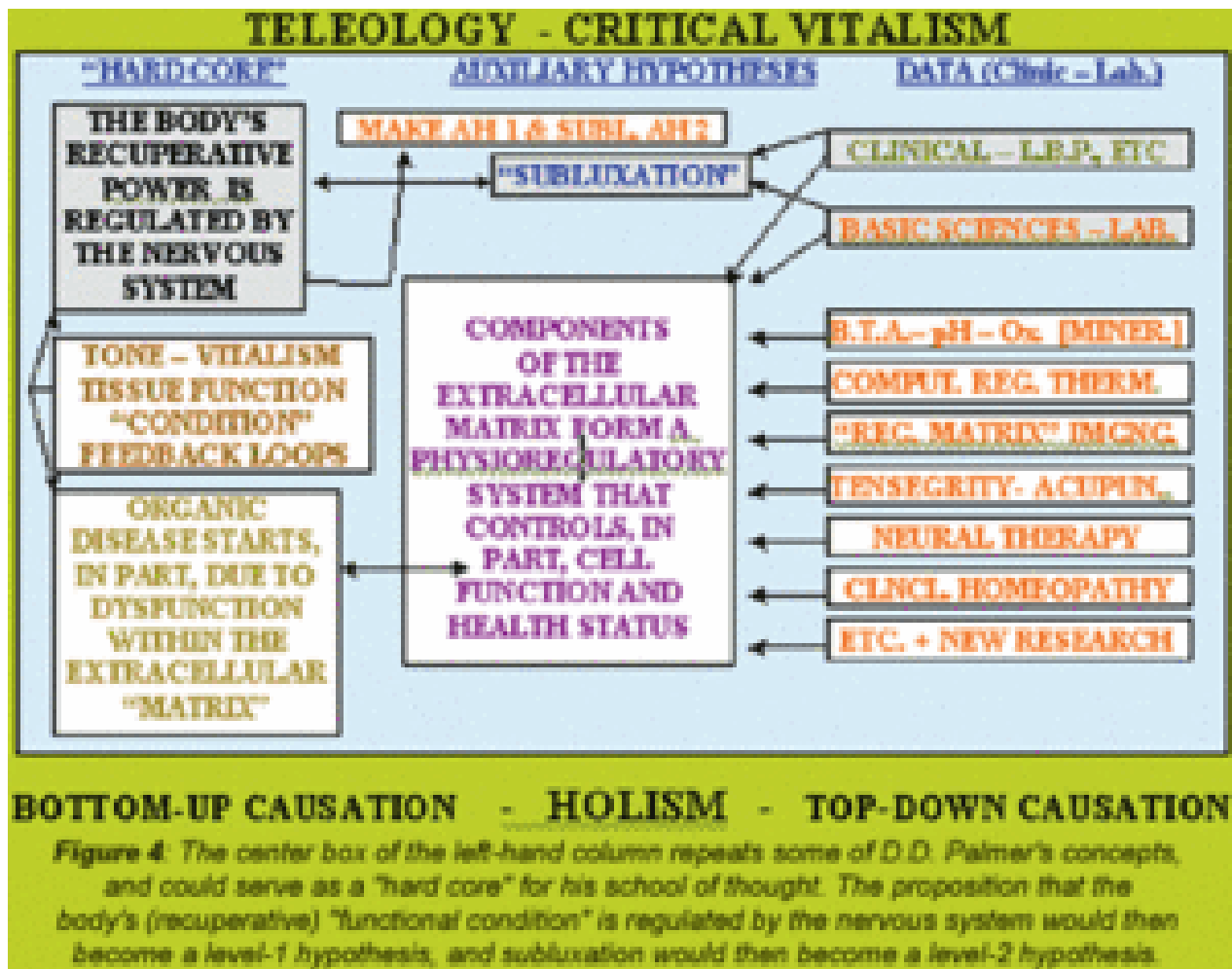
1. They generate the more specific questions to be researched.
2. If the evidence tends to not corroborate a hypothesis, the hypothesis can, like a pawn in a chess game, be sacrificed (or modified) without affecting the hard core.

The hard core is not phrased in terms that can be falsified. Rather, the questions as to the hard core are ones of plausibility (our words) and whether the hard core, as framed, generates significant predictive hypotheses and research questions.

As noted at the three o'clock position in Fig. 3, there can be more than one "layer" of auxiliary hypotheses. The hy will be more abstract, conceptual and theoretical than the second "layer" (AH 2) hypotheses.

Prior to Lakotas, MIT philosopher Thomas Kuhn had argued that when a new paradigm arises in science, the practitioners using the new concepts become locked in a struggle with the practitioners of the older paradigm, and the new paradigm will not gain recognition until the "old guard" has passed on. Lakotas shows this does not need to be, and often historically has not been, the case. His analysis demonstrates a basis and need for the development of parallel research programs (or paradigms). That is the point we have been developing in this series of articles.

What is the "hard core" concept of chiropractic? What should it be according to Lakotas' approach? We will take a look at a limited aspect of these questions and make some suggestions.



We suggest that the nerve/subluxation concept is not large or accurate enough, or sufficiently abstract to serve as the hard core of the Palmerian paradigm; it is too easily subject to falsification. As shown in our prior articles, the body's recuperative power is controlled, in part, by the nervous system functioning together with, and as part of, the whole extracellular matrix. Of course, one could look upon the "subluxation" as a metaphor for the idea that the body's regulatory capacity can become slightly dysfunctional, resulting in organic disease.

Once one accepts the possibility of a (metaphorical) "subluxation" beyond the intervertebral

foramen, one has to expand the treatment options. It is, however, preferable to explicitly state the core concepts and hypotheses along the lines suggested in Fig. 4. Of course, additional "hard core" concepts and auxiliary hypotheses should be incorporated into any research and professional development program.

It is important to note that "acupuncture" is part of the "physioregulatory" paradigm, as presented in Fig. 4, and not a replacement for it. The fact that the use of acupuncture needles can become part of such a paradigm does not diminish the importance of traditional Chinese medicine, which obviously has its role in the health care marketplace. But that role should not be to exclude chiropractors, either being specifically trained under their existing license in that area, or otherwise including the use of acupuncture (or other) needles within the physioregulatory paradigm.

Imre Lakotas focused upon astronomy and physics in developing the theory of philosophy of science briefly discussed in this section. Medicine is a more difficult subject, and we need to briefly consider the differences between laboratory (basic science) and clinical research programs.

Rationalism Versus Empiricism: Laboratory or Clinic

Harris Coulter has written a four-volume history of Western medicine from the time of Hippocrates to the 20th century. His *Divided Legacy* shows a 2,500-year debate about rationalism vs. empiricism. The rationalists believe the physician can figure out the full panoply of activities going on in the human body and decide which treatment to administer, based exclusively on the findings of basic science. Empiricists believe this is not correct, and that medical practice should be based on clinical experience. The respective positions have often been treated as mutually exclusive. Presently, there is no justification for that position. The key is to develop an appropriate balance of the laboratory and clinical sciences.

Coulter points out that Samuel Hahnemann was an empiricist *par excellence*. Hahnemann believed there was a "vital force" in the body that made it capable of responding to external stimuli in an almost unlimited manner. One does not really have to address the idea of a "vital force" to conclude that life is irreducibly complex. Due to that complexity, not all factors related to health care can be determined by basic science and laboratory procedures. Therefore, the importance of clinical experience must be recognized. (Every chiropractor should have a copy of Professor Joseph Keating's book: *Toward a Philosophy of the Science of Chiropractic: A Primer for Clinicians*. We refer you to that book for information about measuring clinical experience.)

"Vitalism" is the ultimate offense to scientific materialists, such as Sir Francis Crick. This is primarily because of the philosophical and religious implications of the concept of vitalism. There is, however, an additional reason. Materialists argue that vitalists are opposed to quantifying the results of their work. There is simply no excuse for a failure to adequately quantify one's results, whether in the laboratory or in the clinic. For those who wish to continue using the term "vitalism," we suggest a new terminology to clarify the fact that one is not opposed to quantification: "critical vitalism."

Vitalism is more compatible than materialism with the traditional, or not-so-traditional religious belief. Larry Dossey, MD, and Herbert Benson, MD, have documented the importance of belief to the healing process. Therefore, those who subscribe to the concept of "critical vitalism" should be prepared to defend their position philosophically, scientifically and legally, and to support their patients' own rights to their belief systems. The paradigm we have suggested in this series of articles includes the concept of the "biology of belief."

Some Conclusions

We started this series of articles with "Comparing Paradigms - Defending Fundamental Principles." We would be naïve to think that all chiropractors would agree we have been doing that. Nevertheless, we suggest that chiropractors follow D.D.'s example (Fig. 1) and be willing to modify their position, due to the data we have presented in this series of articles, and as suggested in Fig. 4. We deem our suggestions minor adjustments (or merely a restatement) to the basic school of thought developed by D.D. Palmer. We believe the proposed changes could have great significance in opening up new opportunities to practicing chiropractors in the 21st century.

We would be remiss in concluding this series of articles without reiterating our recognition of the importance of the "mixer" school of thought. In closing, we quote John Howard's concept of adjusting the body's functional capacity. Dr. Howard founded the National College of Chiropractic in 1907.

"What was Howard's 'physiological adjustment'...Our system is as broad as nature itself, and therefore embraces all natural methods, which possess virtue in assisting normal function of the body."

- Beideman, *In the Making of a Profession*, p. 39

Figure 5: Chiropractors and patients would greatly benefit from the unification of Howard's principles with the concept of the "physioregulatory matrix."

References

1. D.D. quotes: (A) Maynard JE. *Selective Writings of Daniel David Palmer*, self-published, 1982, p. 213 (The pagination follows the pagination in the original work.); (B) Wardwell W. Chiropractic, the History and Evolution of a New Profession; (C) Riekeman GF. Helping your patients understand chiropractic. *Chiropractic Economics* Aug 2001:54(4); (D) A.C.C. position paper # 1, 1996; and (E) Lenoir T. *The Strategy of Life: Teleology and Mechanics in Nineteenth Century German Biology* 1982, pp. 2-3.
2. Barbour I. Religion and Science, Historical and Contemporary Issues. HarperCollins, 1997, p. 230. (This is not the time or place for an extended discussion of the interface between science and religion, but we will cite two additional sources that Dr. Prescott has found particularly useful on these issues: Schroeder G.L. *The Science of God, The Convergence of Genesis and the Big Bang*, Broadway Books, 1997; Ward K. *God, Chance and Necessity*, Oneworld, 1996.)
3. There were two mainstreams in 19th-century German biology. One we will address here stems from Kantian philosophy; the other is based upon Platonic idealism, *naturphilosophie*. The main premise of this latter group was that life is an expression of an "ideal" form existing outside the material plane. We will not address that matter further here. In addition, we will not address the Anglo-American counterpoint to Darwin based upon the "argument from design," other than to say that the argument can be traced back to Aristotle, was used as one of the "proofs" for the existence of God by Thomas Aquinas, and is coming back into current vogue in such works as M. Behe's *Darwin's Black Box* (the Free Press, 1996.) Also, it needs to be remembered that Kant was, in part, reacting to Descartes, who had declared the body to be a machine. Of course, Descartes was, in turn, reacting to prior philosophers, such as Plato and Aquinas.
4. Worrell EJ, Currie G. *The Methodology of Scientific Research Programmes*. Philosophical Papers, Cambridge, 1978.
5. We recommend that anybody interested in the relationship between *Genesis* and the proposition that life is derived from a limited number of body types should read Schroeder's book cited in reference note 2. It was written by a former professor of physics at MIT.

6. Rupert Sheldrake hypothesizes that the "morphogenetic field" is not limited to factors within the body.
7. See Figure 4.

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Editor's note: The five previous articles in this six-part series appeared in the following issues: Sept. 12, 2001; Oct. 8, 2001; Jan. 28, 2002; April 8, 2002; May 5, 2002. You can find these articles on www.chiroweb.com by clicking on the "Previous Issues" link.

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