

Vitalism—A Worldview Revisited: A Critique Of Vitalism And Its Implications For Naturopathic Medicine

Ian Coulter, PhD; Pamela Snider, ND; Amy Neil, MS, MAP

Ian Coulter, PhD, Rand Corporation, Author, Foundations of Naturopathic Medicine Institute. Pamela Snider, ND, Executive and Senior Editor, Author, Foundations of Naturopathic Medicine Institute and Faculty, Bastyr University, Associate Professor, National University of Natural Medicine. Amy Neil, MS, MAP, Medical Editor, Author, Foundations of Naturopathic Medicine Institute

Philosophy and Medicine

What is the relationship between philosophy and medicine? What is the purpose in studying philosophy and the philosophical roots of current medical practice? Many branches of philosophy address the nature of being, and the nature of existence and reality, which are of ultimate concern to our existence as humans, and thus of influence in medical practice.ⁱ The influence of philosophy on medical practice extends throughout the history of medicine, as emphasized by Nordenfelt¹:

Health has not generally been viewed as a proper object of philosophical study. It is not well known that health and health care were important topics for Plato and Aristotle, as well as for Descartes, Locke and Kant. Few people know that the dominant school of medicine in Europe until the seventeenth century—Galenic medicine—was an application of central themes in Aristotle's natural philosophyⁱ or that many of the schools that followed were highly influenced by Descartes' philosophy of man. Even fewer would believe that philosophical analysis or speculation could make any valuable contribution to modern medicine. Medicine has for a long time ... been liberating itself from the bonds of philosophy in its move to become an empirical science.

Vitalism is a worldview and a key philosophical root of naturopathic medicine as well as a focus of criticism among its detractors. It is a concept notoriously difficult to elucidate and often is roundly debated among naturopathic physicians. Vitalism is not simply an isolated principle in naturopathic medicine—it is an integral part of the naturopathic paradigm and is the foundation for many of its underlying principles. It leads to a different philosophy about health, about health care, and about the role of the health provider. It is the basis of the claim that biomedicine (conventional medicine) and naturopathic medicine are distinct paradigms.

This paper represents a philosophical “critique” in which we will systematically explore and characterize vitalism, its position within metaphysics (a branch of philosophy,) and its ontological (core question) and teleological (purpose) perspective, to discern if its concepts can be elucidated in a rational format; i.e: explicitly operationalized to enable scientific inquiry, and to assess its viability as an enduring and future concept within clinical medicine.

The authors suggest that although worldviews are a focus of many branches of philosophy, and although they are metaphysical in nature, they are (and perhaps should be) subject to critique by health professions. It is one thing to be a vitalist—or a scientific materialist—but is something else to use such a worldview as a dogma. We attempt to show how this happens. More importantly we lay out a method of critique for metaphysics and worldviews that Naturopathic medicine can use in mounting both a critical, inquisitive and reflective approach to vitalism in teaching, practice and research. With this approach, worldviews then become fertile soil for scientific discovery. Through diverse worldviews society, and health professions have the opportunity to broaden scientific and clinical theories, questions, practices and hypotheses; in service of evaluating what the nature of health, healing and illness is. Understanding the *vis medicatrix naturae*, a vitalistic concept and world view, is the central ontological question of naturopathic medicine, and the work of naturopathic physicians.

A Brief History Of Vitalism

There are many opinions about what vitalism actually is. In general, it is the doctrine that life originates in a vital principle, distinct from chemical and other forces. It is a belief that there is a vital force operating in the living organism and that this cannot be reduced or explained simply by physical or chemical factors. As Lipman observed,² “We can then define vitalism as the belief in the existence of some operating principle which is not found in inorganic nature and which distinguishes a living organism from the physico-chemical world.”

Vitalism has a long history in both Western and non-Western societies. In Western societies, the concept of

i. Throughout much of 1100-1600, and preceding the Newtonian Scientific Revolution, medicine was considered a “natural science” though this was debated. The natural sciences emerged from natural philosophy.

vitalism appears in health writings, almost continuously, from the ancient Greeks to contemporary health professionals.

Yet, there also has been a long history of controversy concerning vitalism. Although a detailed history of this worldview is beyond the scope of this article (and is presented elsewhere),³⁻⁵ summarizing its history here, allows us to place contemporary vitalism and the controversy about it in a historical context. It is important to note, however, that the debate around vitalism intensified considerably in the 18th and 19th centuries,⁶ during which vitalism increasingly was used as a derogatory term. Even today, it is used by some to imply, “lack of intellectual rigor, anti-scientific attitudes and superstition.”⁶

Roots: Aesculapian Vs. Hygeian Worldviews

In ancient Greece, there already existed a division between two schools of philosophical thought and practices of healing:

- **Aesculapian philosophy** embraced a mechanistic view of health and illness, and adopted what we would now consider a scientific, investigative approach to nature. Within this approach, diseases were considered to have material causes that gave rise to specific diseases and symptoms.
- **Hygeian philosophy**, the alternative view, was based on the philosophical principle of *vis medicatrix naturae*, which adopted a holistic, vitalistic approach to health; did not separate the mind and the body; and believed the body had natural healing processes and that healthcare providers simply facilitated these natural healing processes.⁷

Among the Greek philosophers, the conflict between these worldviews is evident in the disagreement between Democritus and Aristotle.⁷ Democritus’ deterministic theory proposed that nature, including humans, consisted of atoms. Aristotle’s vitalistic theory proposed that living organisms consisted of a primordial substance (soul) and form, which transformed it into a specific thing.⁵ The Aristotelian worldview (also shared by Galen and Paracelsus), was the dominant worldview throughout Europe until the 16th century.⁵ It is important to note that in the Aristotelian worldview, soul and body were not considered separate (dualistic), but as insoluble parts of a whole. It is only later, with the works of philosophers Bernardino Telesio (1509-1587) and René Descartes (1596-1650), that separation of mind (or soul) and body were introduced.⁵ In Descartes’ worldview, organisms are machines and everything about them can be explained by the laws of mechanics and physics.⁵

Influence Of Worldviews On Medicine

Because of its importance historically, the Greek way of thinking about the body and health has left an indelible

mark on Western thought. The Aristotelian view was that the body had *pneuma* (spirit) or vital breath.⁸ The *pneuma* is located in the heart, whereas the soul (*psyche*) is located either in the breast or in the head. This idea was assimilated into Jewish, Christian, and Muslim practice and philosophy.⁸

The division between the Aesculapian and Hygeian schools of thought continues to influence today’s healthcare practices and system. Each school of thought continues to exist in modern society—biomedicine represents an essentially Aesculapian worldview, and Integrative Health (IH) care professions referred to formerly primarily as Complementary and Alternative Medicine (CAM)ⁱⁱ (including naturopathic medicine, and traditional world and indigenous medicines), represent a Hygeian worldview.

Likewise, the close association between Greek medicine and philosophies (such as vitalism) continued to influence healthcare practice until quite recently, in historical terms. By the mid-twentieth century, biomedicine generally had lost this connection with philosophy, while IH care practices continue to be very philosophically based. Although we will return to this point later in this chapter, it could be argued that biomedicine is still highly philosophical in embracing science which, in its contemporary version, is the philosophy of critical rationalism and scientific materialism proposed by Karl Popper.^{9,10} Yet, biomedicine tends not to acknowledge this and, in fact, tends to hide its philosophical base.^{11,12}

The Influence Of Vitalism On Integrative Health And CAM Disciplines.

Although naturopathic medicine is the focus of this textbook, it shares much of its vitalism and some of its philosophical foundation with other IH care practices, including traditional and indigenous world medicines. Placing it in this broader context allows us to illuminate the distinct features of naturopathic medicine that are influenced by vitalism.

Integrative health disciplines and systems are extremely diverse; however, a key characteristic they share is vitalism. All of these disciplines (or systems) ascribe—in one way or another—to the principle of vitalism; all living organisms are sustained by a vital force that is both different from, and greater than, physical and chemical forces. As shown in Box 1 there are several ways of expressing the vitalist concept within these disciplines.

ii. CAM has been defined by the National Center of Complementary and Alternative Medicine (NCCAM), as those health practices not taught in Western medical schools. While historically this is correct, many conventional medical schools now include courses in CAM. CAM might be more accurately described as “health practices that do not form a core part of biomedicine, as it is practiced in North America. Where it is included in biomedicine, it is done so as adjunctive therapy.” NCCAM changed its name to NCCIH (National Center for Complementary and Integrative Health) January 2015. Integrative health care as a pluralistic, health and healing focused term, super-ceding “CAM”.

Ayurveda

Ayurvedic medicine, a 5000-year old medical discipline, refers to vital energy, a unifying life principle, as *Prana*, “breath of life.” *Prana* is the Sanskrit term for breath. *Prana* is understood to manifest in many forms, entering the body at birth and holding body, mind and spirit together as one, before leaving at death. *Prana* comes from the heart, the seat of human emotions and consciousness and where the true sense of who we are resides. Ayurveda addresses healthful living during the entire span of life, its various phases, environments and seasons, and emphasizing a balance of three elemental energies or humors.¹³

Chinese Medicine

Qi is the life force of the universe that constantly flows through every living organism and non-living object. Chinese medicine believes an imbalance of *qi* in an individual represents the root of all illnesses. An individual may have either a deficiency or excess of *qi*. Acupuncture can restore balance by improving the flow of *qi* or by replenishing an individual’s reserve of *qi*.¹⁴

Naturopathic Medicine

Vitalism is evident within the writings of Henry Lindlahr, one of the early founders and theorists of naturopathic medicine. In his seminal work, *Nature Cure*, Lindlahr wrote, “Health is the normal and harmonious vibration of the elements and forces composing the human entity on the physical, mental, moral and spiritual planes of being, in conformity with the constructive principle of Nature applied to individual life.”¹⁵ Today, vitalism is formally articulated within the definition of naturopathic medicine:

“The healing power of nature is the 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 the naturopathic physician’s role to support, facilitate and augment this process by identifying and removing obstacles to health and recovery, and by supporting the creation of a healthy internal and external environment.”¹⁶

This vitalist concept pervades naturopathic practice and is present in the first of six naturopathic Principles of Practice (*Vis Medicatrix Naturae*, the healing power of nature), as well as in the Naturopathic Medical Research Agenda, which states: “Naturopathic physicians seek to restore and maintain optimum health in their patients by emphasizing nature’s inherent self-healing process, the *vis medicatrix naturae*.” (Standish, Calabrese, Snider 2005; 2006); . In naturopathic medicine, therefore, vitalism is expressed as a “vital” or “life force” that is inherent in the patterns and processes in nature, and in us.¹⁷

Traditional Chiropractic

Historically, the vital force was expressed as “innate” (the body’s intelligence) and as “universal intelligence”

In naturopathic medicine, the ‘healing power of nature’ refers to the inherent, self-organizing, and healing process of living systems that establishes, maintains, and restores health.

(the intelligence inherent in all things natural). This vital force is the natural healing force within the body (the body heals itself) and is expressed through the central nervous system. As with naturopathic medicine, this expression in the body as “innate intelligence” also is considered a part of nature (universal intelligence).

In early to mid-twentieth century medicine, as biomedicine progressed toward global standardization of diagnosis and treatment, vitalism and those who supported its views became increasingly criticized and marginalized. Chiropractic, along with naturopathic medicine, continued to support and practice, vitalism, thus preventing its nearly complete extinction from western medicine and science.

In some interpretations, the vital force is considered supernatural (spirit). In naturopathic medicine, the healing process is considered to be “ordered and intelligent.”¹⁶⁻¹⁸

In a more conservative form, vitalism posits *vis medicatrix naturae* (the healing power of nature) without specifying *how* this healing occurs. Within this approach, the physician merely facilitates the body’s healing powers, whereas in biomedicine, healing generally occurs through the therapy itself (drugs, surgical removal etc).

Vitalism leads to a different philosophy about health, about health care, and about the role of the health provider. It is the basis for the claim that biomedicine (conventional medicine) and naturopathic medicine are distinct paradigms. This fundamental, *a priori* difference leads to a different logic about treatment. In naturopathic medicine, the focus is on treating the whole patient whose total being (mind, body, spirit) then initiates the healing process.

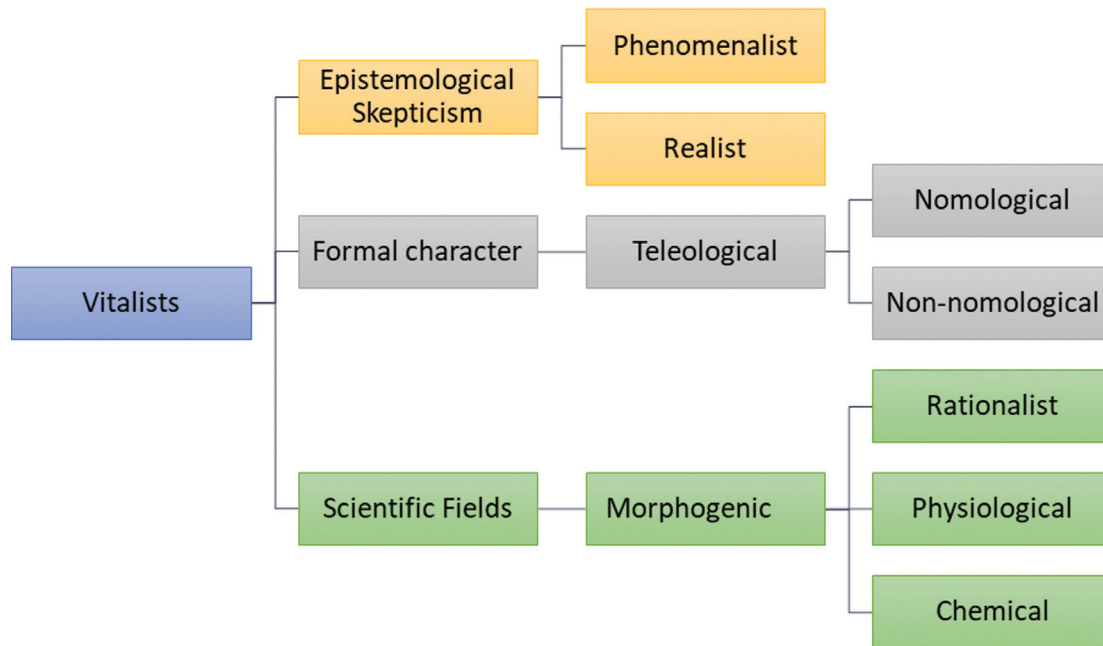
The intent of conventional medicine is to cure patients. The intent in naturopathic medicine is to assist patients to heal themselves, to “treat disease by restoring health.”¹⁶ With this approach, diseases are symptoms of a more fundamental underlying cause, and patient care incorporates six naturopathic principles now espoused by the American Association of Naturopathic Physicians:¹⁶

- the healing power of nature (*Vis Medicatrix Naturae*)
- treat the whole person (*Tolle Totum*)
- first do no harm (*Primum non Nocere*)
- identify and treat the cause, not the symptoms (*Tolle Causam*)
- prevention and health promotion is the best cure (*Preventir*)
- the physician is a teacher (*Docere*)

Table 1. Vitalist terminology used in integrative health care, CAM and in traditional world medicines

IH & TWM Discipline	Vitalist term(s)
Chinese Medicine	qi (chi); yin-yang
Ayurveda	Prana, breath of life
Chiropractic	innate intelligence, life force, universal intelligence
Naturopathic Medicine	vis medicatrix naturae, vital force, vis, life force

Figure 1. There are many variants of vitalism, and only some invoke metaphysical and teleological principles.



Why Does The Concept Of Vitalism Still Exist? The Benefits Of Controversy

Despite the historical debates (and attacks) on vitalism, and despite predictions about the death of vitalism, it has proven to be quite resilient. Greco, using a term coined by Canguilhem, refers to this as the ‘vitality of vitalism.’⁶ In this sense, vitalism has operated throughout the history of ideas as a “motor force”⁶ against which mechanism, reductionism, have had to defend themselves. Hence, vitalism continues to exist, because it is necessary for its opponents to continually refute it;¹⁹ that is, its vitality is not dependent only on the support of its followers.

Features of Vitalism

The concept of vitalism is:

- metaphysical, meaning it addresses fundamental, *a priori* concepts about the nature of being, and
- ontological, meaning it embraces a belief about the ultimate nature of reality.

One argument is tautological (it gives an explanation for why the body heals itself, but says nothing more than that the body *does* heal). This position contrasts with

materialism, which maintains that disease can be explained entirely in terms of materialistic factors (usually biological factors, in the case of biomedicine); hence, there is no need to invoke vitalistic forces.

Vitalism has many variants²⁰ and not all forms of vitalism invoke metaphysical or teleological principles (see Table 1). Greco⁶ notes that a distinction can be made between animist and naturalist vitalism:

- **animist vitalism** is both metaphysical and teleological
- **naturalist vitalism** “posits organic laws that transgress the range of physical explanations.”⁶

Often these distinctions created more discord among the vitalists, than the issues that divided vitalists and non-vitalists.²⁰ Common features of vitalism within integrative health and CAM professions

Spiritualism

Integrative health systems of practice share beliefs and clinical principles about vital force, spirituality, and holism. In terms of spirituality, many include beliefs from the cultures in which they developed; hence, Traditional Chinese medicine

includes Taoist beliefs, Ayurvedic medicine incorporates a Hindu worldview, and Tibetan medicine includes Buddhist concepts. Six basic health views that characterize IH/CAM disciplines also are shared by naturopathic medicine:

- self-healing is thought to be paramount
- work with, not against, symptoms
- stress individuality, with each person's condition and causes being different
- individuals are regarded holistically and health involves the integration of human facets of life
- illness has no fixed beginning or end
- remedies conform to universal principles, such as yin/yang, similars, and constitution

These systems also emphasize health determinants (or factors) as the foundation of intervention, and a “step-wise order” of assessment and intervention (for example, the naturopathic hierarchy of healing or Therapeutic Order¹⁸ or the implicit step order patterns found in Tibetan, Ayurveda, Unani, and Chinese medicine prescriptive strategies.

Philosophical Principles

Both naturopathic medicine and IH systems incorporate three additional philosophies into their approach to healing and, hence, into their principles of practice:

- **Naturalism**—many integrative health and all CAM disciplines express a preference for natural remedies, modalities, or medicines. This is associated with a set of philosophical principles that may be expressed as: (1) the body is built on Nature's order and it has a natural ability to heal itself; (2) this natural healing is reinforced by the use of natural remedies; (3) the natural healing should not be tampered with unnecessarily through the use of drugs or surgery; and (4) where possible, we should look to nature and to natural substances and processes for therapeutic interventions. While we may debate the extent to which many of the substances of IH disciplines are actually “natural,” there is widespread acceptance of things natural.
- **Humanism**—this is based on the postulate that all individuals differ in matters of health and, therefore, must be treated individually. This is, in part, recognition of the personal, social, and spiritual aspects of health, and a departure from considering only the biology of health. It also recognizes that the state of “health” is unique to individuals and, therefore, what constitutes health for one, may not do so for another. Humanism also is reflected in the belief that each individual is also a spiritual being and that health involves mind, body, and spirit.

- There is another element to humanism: individuals have immutable rights, such as the right to dignity. In naturopathic medicine, there is extensive concern about dehumanizing procedures and the dehumanizing institutions that have been created to care for the ill. There also is concern about the dehumanizing nature of medical technology. Naturopathic medicine and IH disciplines generally practice in smaller, solo or group practices in which the patient's dignity is considered an important part of therapy. To a large extent, naturopathic physicians have avoided the dehumanizing structures of large bureaucratic institutions, such as hospitals, in which patients are identified by case number or by a particular disease case established by the diagnosis.
- **Therapeutic conservatism**—most integrative health systems are therapeutically conservative. Naturopathic medicine, for example, uses therapies that have a low number of side effects and tends to accept that the least invasive care is the best care. In some ways, this is derived from the naturopathic principles cited earlier,¹⁷ such as the *vis medicatrix naturae* (“removal of obstacles to healing”),¹⁶ and *primum non nocere* (do no harm). Naturopathic physicians follow three precepts to avoid harming the patient: (1) utilize methods and medicinal substances that minimize the risk of harmful effects, (2) apply the least possible force or intervention necessary to diagnose illness and to restore health.¹⁶

If the body is capable of healing itself, the role of the therapy is simply to support and stimulate the process. Since unnecessary care may intervene with this process, the intent is for the minimum treatment necessary to restore health. This is not to suggest that IH or naturopathic treatment may not be extensive, but only that it tends to be conservative. Much of IH care is oriented to facilitating patients' self-agency and self-efficacy, and to reducing therapeutic dependency. Paraphrasing Andrew Still, the founder of osteopathic medicine, health ‘comes from within or not at all,’ and health providers ‘can no more give the patient health than they can give the patient honesty.’

Within naturopathic medicine and other IH disciplines, vitalism is not an isolated principle, but an integral part of the IH paradigm and is related to several other underlying principles. It is this constellation of these elements that gives naturopathic medicine its uniqueness. As we note later in this paper, these principles give rise to a distinct approach to health, healing and illness, a distinct approach to therapy, and a distinct conception of the role of healer or provider. Without understanding this vitalistic component, much of the paradigm of naturopathic medicine may be difficult to understand.

Vitalism, Science, and Philosophy

The conflict in science about vitalism usually is portrayed as an argument between mechanism and vitalism, but it can equally be portrayed as an argument between organicismⁱⁱⁱ and vitalism²¹ or between physicalism^{iv} (scientific materialism) and vitalism.²²

The Debate Concerning Vitalism

The position of scientists (even great scientists), with regard to vitalism has been extremely variable and controversial. To take two examples from the history of science:

“It is as legitimate to ascribe a vital cause as it is to ascribe a gravitational force. Science studies the laws of the vital force not the vital source itself, just as the laws of gravity are not an explanation of gravity but of its operation. We know about gravity through its operation.” (Justus von Liebig, German chemist (1803-1873), considered one of the greatest organic chemistry professors of all time and the ‘father’ of the modern fertilizer industry.)

“We can foresee a time when vitalism will not be seriously considered by educated men – I would make this prophecy: what everybody yesterday, and you believe today, only cranks will believe tomorrow.”²³ who, with James Watson, received the 1962 Nobel prize for discovering the molecular structure of DNA.

The history of science has seen the constant interplay between those who adopt a positivistic philosophy and accept a Newtonian approach, wherein the laws of nature will be discovered and expressed in the language of physics and mathematics, and those who argue that positivism can explain the ‘what’ and ‘how,’ but never the ‘why.’ The latter also argue that the laws of physical reality and inanimate objects cannot also be the laws of living organisms.

Scientists who endorsed some form of vitalism (see variants in Figure 1) include some of the great thinkers of their age. In physics, for example, it includes individuals such as Niels Böhr (founder of quantum mechanics), Eugene Wigner (structure of the atomic nucleus), and Michael Polanyi (solid mechanics and physical chemistry).²⁴ Ultimately, however, we still are left with the same puzzle, “The problem of knowing whether there is a vitalistic conception of disease or not.”²⁵

Those opposed to vitalism, see evidence in the fact that, as science has advanced, many of the phenomena that previously had been given a vitalistic explanation, are increasingly explainable by physical variables. In this light, vitalism has been considered a historical artifact, evoked only when the current science lacked explanations for the phenomena it was observing. Many philosophers have taken a similar position. John Kekes, a contemporary political philosopher, claims vitalism is dying a death by

‘a thousand cuts’ (a thousand qualifications), that it “has been fatally weakened although it has by no means been proven false”²⁶ and that it “may linger on but it no longer serves a philosophical purpose.”²⁶ Kekes assumes that since materialism is increasingly explaining observed phenomena, there is no need to invoke vitalist explanations: “Recent research in the biological sciences indicates that the property of being alive can be materially analysed (sic). The distinction between living and nonliving particulars thus no longer need mark two fundamentally different categories.”²⁶

There have been many attempts to resolve the differences between vitalism and scientific materialism. French physiologist, Claude Bernard (1813-1878), argued that when we focus only on the parts of the whole, reductionism and mechanism (features of scientific materialism) are useful and valid approaches.⁵ *It is only when we begin to consider the whole as more than the sum of its parts, that the metaphysics of vitalism enters the debate.*

What Is The Controversy About?

At its heart, it is about whether those objects that have life are distinguishable from those that do not, and whether the former therefore can be reduced to the same set of physical, chemical, and mechanical laws that define the inanimate physical universe. So, it is basically a controversy between vitalism and scientific materialism. However, Hein²⁷ notes that it also is a continuous debate between vitalists and mechanists about the nature of life, and that “in every generation, at every stage of scientific enquiry, investigators will divide themselves in accordance with a pattern which I have designated as vitalistic vs. mechanistic.”²⁷

The debate also is about different interpretations of how science advances. Some believe this occurs through the repudiation of errors or mistakes (this is known as Falsification Theory,²⁸ so new and more adequate explanations replace older, flawed explanations.—Hein describes this as the “periodic certification of certain dogmas and doctrines which once were held as unassailable truths,”²⁸ noting that the vitalism versus mechanism controversy does *not* result from this phenomenon.

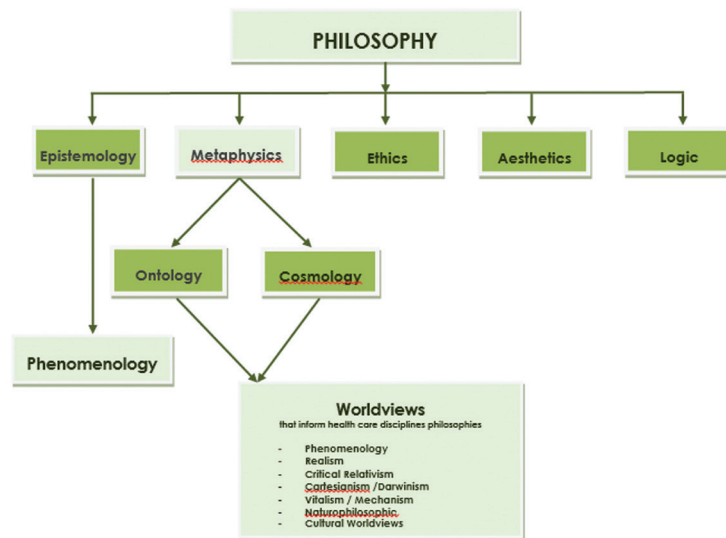
Others, such as philosopher Thomas Kuhn,²⁹ believe science advances through cumulative gestalt transformations and large exponential cognitive changes in which scientists “leap” from one paradigm to another paradigm which is radically different (e.g., from a geocentric universe to a heliocentric universe).

The vitalist-mechanist controversy may be what Hein describes as “meta-theoretical,” because it involves “fundamental commitments on the part of [its] antagonists which do not depend on scientific evidence for their retention and which will not be shaken by evidence to the contrary.”²⁹ Such controversies, according to Hein, are based on “political” orientations which may have psychosociological explanations. They are not subject to rational explanations, but rather reveal a person’s or a group’s worldviews.

iii. Organicism assumes all diseases are associated with organic changes, even if the lesions have not yet been found.

iv. Physicalism (a monistic philosophy) maintains that all phenomena eventually succumb to a physico-chemical-based explanation.

Figure x-2: In philosophy, metaphysics is considered the most general and fundamental science—the science of ‘first principles.’ Its role is to question fundamental postulates.¹⁶



Snider, P., Zeff, J., Myers, S., Koithan, M., Neil, A., *Understanding worldview, philosophy, and theory in naturopathic medicine.* Eds. P. Snider, J. Zeff, J. Pizzorno, S. Myers, J. Sensenig, R. Newman Turner, D. Warren, T. Kruzell. In *Foundations of Naturopathic Medicine- The Healing Power of Nature.* In press. © Foundations of Naturopathic Medicine Institute

While the vitalism-mechanism controversy is about the nature of life, Hein notes there are many areas in which the vitalists and mechanists also *agree* about the nature of life. For instance, they agree that living things are characterized by a high level of organization, and that life is self-maintaining and self-replicating. They agree that living organisms behave in a way that seems purposeful (goal oriented). They also agree about the adaptability of organisms (interaction with the environment and genetic history). So, Hein concludes, the disagreement is not about the description of life, but about “why living things are as they are”²⁹—it’s a controversy about worldview. It is at this level of explanation that vitalists and mechanists disagree.

Exploring The “Explanation” of Vitalism

Explanations neither affirm nor falsify descriptions; rather, they are judged in terms of *adequacy*. Yet, how is “adequacy,” defined and what criteria are used to define it?

Vitalists accept radical discontinuities in nature and a dualism between life and matter.³⁰ Mechanists do not accept such discontinuities. For them, order is a “necessary and natural attribute of matter, requiring no agent which imposes organization upon a primary chaos.”³⁰ Hein thus finds that each worldview is problematic, with vitalism risking ‘multiplying and objectifying essences,’ while mechanism risks ‘ignoring differences,’ ‘oversimplifying,’ explanations and reducing living organisms to ‘trivial generalizations.’³⁰ This controversy is, according to Hein, a “meta-theoretical disagreement.”³⁰

Metaphysics

Metaphysics (meta = beyond, physics) is the branch of philosophy that addresses the ultimate nature of reality

(the basis of our worldviews). Its purpose is to make explicit and to critique the *a priori* assumptions underlying systems of belief and knowledge.³¹

Metaphysical systems are *a priori*; that is, they are presuppositions that are considered to be true. Such presuppositions may be:

- ontological—about the ultimate nature of reality (e.g., there is a God; there is vital spirit)
- fundamental and theoretical commitments
- attempts to understand reality and to provide explanations
- attempts to provide frameworks within which explanations can be given

In this way, presuppositions resemble metaphors (and invariably are expressed in metaphor). Metaphors do not state facts, but formulate conditions under which to state them. For example, the metaphor, “the world is a machine,” provides a metaphysical system or worldview called “mechanism,” the metaphysics underlying the Newtonian view of the universe.

In philosophy, the role of metaphysics as a field is to question these fundamental postulates. However, not all philosophers are well disposed to metaphysics, because the veracity or falsity of metaphysical theories cannot be observed. This “immunity to refutation ... has led many to allocate them to fields of mysticism and poetry.”²⁶ Yet metaphysical theories are meant to be true by definition and are not intended as empirical statements. They tend to be broad conceptual frameworks, such as determinism, materialism, and dualism, and apply to entire fields and disciplines. *Metaphysical theories tend to be broad*

worldviews. As shown in Figure 2, within the discipline of philosophy, metaphysics was traditionally the most general and the most fundamental science—the science of “first principles.”

Metaphysics and Science

The role of metaphysics in science also has been controversial. Some want to confine their role to the logic of discovery²⁸ or to scientific speculation: “Physicists’ speculations about universes outside our own observable universe ... are extensions into a realm where tests are impossible, because those other universes are, by definition, outside of anything we might ever observe ... I call such speculation scientific metaphysics...”³²

Others see science as inherently metaphysical and see metaphysics as dominant in determining the major scientific problems engaged by scientists in any age.³³ “Metaphysics was historically, and continues to be, a heuristic for scientific research and theory formation.”³⁴ A heuristic is a tool, in other words; it is judged in terms of its usefulness and not its truth. A heuristic device is a useful device.

Despite attempts by outstanding scientists and philosophers to divorce metaphysics (worldviews) from science, such attempts have been spectacularly unsuccessful. Historically, discussion about the role of metaphysics in science also includes addressing the demarcation problem in the philosophy of science.^{28,34-38} Although this debate is beyond our purpose here, on one side are those who see a significant and constant role for metaphysics in science. On the other side are those who deny the role of metaphysics or who confine it to the process of discovery or to “immature science,” which does not ascribe to metaphysical constructs, and has replaced them with literal and empirical constructs.

While the ultimate truth or falsity of metaphysics may not be determined, they can be subjected to critical discussion and review. If we adopt a heuristic view of metaphysics, then we can ask the question—is a particular metaphysical belief more, or less, useful? In science, since they provide conceptual frameworks or conceptual models, it is legitimate to ask, “do the models advance our understanding, do they provide new insights?” Agassi³³ has argued that not only is metaphysics (worldview) important (and present) in science it dominates the scientific problems that engage scientists in any historical period and that it should correctly be viewed as research programs—as the system that gives direction and meaning to research programs. Yet, metaphysics can quickly degenerate into dogma and mysticism. This, according to Wartofsky³⁴ should not be a critique of metaphysics, itself, but rather of bad metaphysics, which is “sloppy metaphysics, lacking rigor in construction, lacking richness in characteristics of its entities, or lacking originality, merely producing bad copies of good originals”³⁴

For Wartofsky,³⁴ metaphysics (and worldview) is heuristic in two senses: (1) it provides conceptual

frameworks used by scientists in a “practice heuristic,” (for example, the splitting of atoms); and (2) it provides a heuristic for understanding, a guide for rational practice (including, for example, the concept of the double helix for understanding DNA).

In science, metaphysics is formalizable and must have some relationship to logic. The concepts of metaphysics “presume to be an interpretation of the world (or some part of it), all claim to be rational, and most claim to be true (even if they are unsure how that could be determined, if at all).”³⁹

It must also be the case that two metaphysical systems that contradict one another, or are incompatible, or incommensurable, cannot be equally true. For example, time and space can either be absolute (Newton) or relative (Einstein), but not both. They may both be false, since there is no way to prove them to be false. The same may be said of the metaphysical (worldview) doctrines of vitalism and mechanism: “from an epistemological point of view both vitalism and mechanism are metaphysical doctrines and neither of them can be submitted to experimental control.”²⁵

Critique and Metaphysics

If we cannot establish the truth or falsity of a metaphysical system like vitalism or scientific materialism, does that mean it is immune to critique? Can we tell the differences between “good” and “bad” metaphysics (worldviews)? Are there rational criteria I could use to distinguish the good from the bad? Metaphysical concepts do stand in need of rational support and rigor (that is, in science, they have to make sense). They should have logical consistency and conceptual coherence. They should also have problem-solving capacity and explanatory power. In science, especially, they should have criticizability,²⁶ so they do not degenerate “into non-metaphysical ritual and dogma.”³⁴

Even if a metaphysical system passes this critique, we still cannot say it is “true.” We can say it has survived a heuristic critique and that it has not been shown to be false. It may also be possible for several metaphysical paradigm systems to coexist in science at the same time. Realism, instrumentalism, idealism, materialism, vitalism, mechanism, pluralism, dualism, holism, determinism, functionalism, structuralism, uniformitarianism, determinacy and indeterminacy have coexisted in science, even though many fundamentally contradict each other.

If we take the position that metaphysical (worldview) concepts are created to solve problems, then the persistent failure to solve the problems is a rational basis for rejecting them. For example, Euclidean geometry is dependent on the a priori assumption that two parallel lines never meet, but not on the truth of that statement. As long as the assumption is accepted, the rest of Euclidean geometry is deductively true. But the deductive power does not establish the truth of the a priori premise. From a problem-solving perspective, however, Euclidean geometry has been spectacularly successful.

Of course, rationalism cannot itself rationally justify its own presupposition;³⁷ that is, we cannot assume a rational approach to metaphysics is superior in some absolute sense. It would have to presuppose its own absoluteness to do that.

Science is riddled with metaphysical, worldview concepts, although, as Wartofsky³⁴ observed much of it is not recognized as such by scientists or acknowledged when it is recognized: “Many scientists are full of metaphysical hunches but not many ... can follow a metaphysical hunch across the street.”³⁴

Metaphors and Metaphysics

As noted earlier, metaphysical concepts usually are expressed as metaphors. The danger (like that of metaphors), is when the metaphor “goes underground” (becomes an inherent assumption) and we forget that the concept is a metaphor. It is a characterization of “what is” but it is NOT “what is.” This is a process of “reification,” when what initially was postulated as a possible truth (e.g., the universe is like a machine) comes to be seen as the truth (e.g., the universe is a machine) and ultimately, the only truth. During this process, the metaphor is transformed into myth. Myths become dogma, and this occurs when we forget the metaphorical and metaphysical basis of our science. In the process, the metaphor comes to be considered a literal truth and thereby becomes myth.⁴⁰

With reification, the construct we have created comes to be seen as other than our construct. It is one thing to say, ‘the world is like a machine,’ but something quite different to say, literally, it is a machine. Dogma occurs when we forget the metaphorical and metaphysical basis of our science. When that happens, the metaphor has “gone underground” and is no longer considered a metaphor, but as the literal truth. What begins as an insightful and/or new way of looking at the world that helps us describe, explore and understand it, becomes a set of blinders that locks those who use it into only one way of seeing the world. In this case, rather than being an aid to understanding, the metaphor becomes a barrier to understanding.

This may occur with the concept of *vis medicatrix naturae*: if it is taken to mean ‘the healing power of the body,’ then there are an infinite number of ways in which this can be expressed. In naturopathic medicine, it is expressed metaphorically as a “form of innate intelligence of the body.” If we then forget that this is a metaphorical reference, then *vis medicatrix naturae* becomes identified as being identical to a metaphorical expression of vitalism as innate intelligence when in fact it could be expressed metaphorically in other ways (as spirit or energy for example). Each expression has different consequences for how *vis medicatrix naturae* is conceived and how it impacts on practice.

The danger is particularly acute through the process of “metaphorical extension”—when a metaphor is created

in science, we apply it over as wide a field or to as many phenomena as we can. The better the metaphor, the more metaphorical extensions to which it is applied. We can see this occur throughout the history of the health care field. For example, seeing the heart as a pump (which could not occur until after the invention of a pump), gave us a new way to understand not only the heart, but also blood circulation and all the other systems of the body. Similarly, considering the brain as a computer, or the nervous system as an electrical system with synapses and gate controls, creates metaphorical extension. Over time and through excessive extension, metaphors begin to lose their efficacy and applicability. To understand this, we must further investigate and understand metaphors.

Metaphors and Science

Within the field of philosophy, metaphors involve a contradiction — a category mistake, sort crossing, or a logical inconsistency that others see as an absurdity.⁴¹ They involve referring to something by the name of something else, when both the speaker and the hearer know that it is a category mistake. The hearer then jumps over the apparent category mistake and assumes that the speaker intends it as a metaphor. So if I say, “I intend to shoot a couple of waves,” you immediately know that I do not mean literally I intend to “shoot” waves and then you look for the metaphorical meaning. Children often have difficulty with metaphors and are likely to respond “you cannot shoot waves you can only shoot people.” Adults jump over what seems an absurdity and conclude it must be a metaphor. To paraphrase a statement made about metaphors in science, for some philosophers and scientists ‘that which we can speak of only metaphorically we should not speak of at all.’ Rapoport⁴² feels that as long as the vitalist controversy is argued on metaphysical grounds, it falls outside the scope of science.

Metaphors allow us to say something new, but to say it using the literal language we have. That is by using the same words but using them metaphorically we can change the meanings. The contradictions are problematic for both philosophy and science, because both disciplines are committed to solving contradictions (and apparent contradictions): philosophy through use of formal logic and analysis of things, such as fallacies, and science through falsifications (proving that one part of the metaphor is false). The process of untying Gordian knots often involves resolving contradictions. In science, a thing cannot be both true and untrue at the same time; however, this is the very essence of metaphors. If taken literally, metaphors produce falsehood (love is clearly not a red, red rose). They are not supposed to be taken literally.⁴³ String Theory, for example, is not literally intended to mean string. Metaphors are conscious, deliberate category mistakes: they do not state facts, but formulate conditions under which it is possible to state facts. A metaphor may be true of the world, without stating any fact about the

world.⁴⁴ Metaphors either construct (or reconstruct) one class of objects in the terms of another class of objects. The base of a mountain gets reconstructed as the “foot” of the mountain.

Metaphors are problematic for scientists and for philosophers of science, because if we can know the unknown only in terms of the known, and if we can explain phenomena only with the language and the meanings we have, then without metaphorical extension, we would be locked into our present understanding. This creates the paradox: it is only through metaphor that we can expand our understanding. Metaphors allow us to deal with the new in terms of the old, but without reducing it to the old. Metaphors have the amazing advantage of giving us an alternative perspective without requiring an alternative language. The problem with literal language is that it has to be logically consistent, which means if we say some things literally, we cannot say others literally without introducing intolerable inconsistency.⁴⁴ Metaphor “allows us to say that which cannot be said literally, and it allows us to say it in the language that we speak.”⁴⁴ Therefore, metaphors are an inherent part of science. Although there is a tendency to believe that, over time, metaphorical terms become literal terms, in fact is we simply forget their metaphorical basis and we use them as literal terms, unless they become problematic or unless we are reminded they are metaphors. So, our earlier example of the ‘foot of the mountain’ comes to be used as a literal term. One way in which metaphors become problematic is that they “go bad” or “run down.”

As the applicability of a metaphor expands, it is applied over a wider range of phenomena. On one hand, it is more productive and helps us understand more things. Yet, since there is not a one-to-one correspondence between the two referents (the metaphor and the object to which it is applied), the more it is expanded the more obvious the contradiction becomes. In essence, the very nature of metaphors (the fact that they are contradictions) creates a dialect whereby the metaphor is almost guaranteed to run down. This is similar to metaphysics: as long as the metaphor provides insights it will continue, but over time it loses its power to provide this insight. In literature, this is the difference between fresh and novel metaphors, and trite and banal metaphors. They can remain fresh for a very long time (the metaphors of Shakespeare, for example).

The Interaction Theory of Metaphors

Mechanism is another example in which a metaphor became a metaphysical belief system and became the basis for Newtonian science, but ended up almost as a myth. From a heuristic point of view, it clearly advanced our understanding of the universe, gave rise to a powerful research paradigm, and allowed us to formulate theorems and predictions about the universe, but ultimately was shown by Einstein’s work to be seriously flawed. Whereas the Newtonian model postulated as an a priori that time and space are absolute, Einstein’s model postulated both time

and space are relative. Clearly, both cannot be correct. The resolution here was also heuristic. For most of the time, for most phenomena, Newton’s model gives us what we need. In those areas where it does not, Einstein’s model is used. But at one time, it was seriously contemplated that Newton represented the pinnacle of science and that the future task was simply to apply his paradigm over all phenomena in the universe (the metaphor came to be seen as the truth and the only truth). In other words, Newtonian physics became a most powerful metaphysic and, in some circles, a dogma.

This heuristic approach to vitalism can also be seen in the work of Foucault, as quoted by Ransom,⁴⁵ who concluded that it does not mean “that ‘vitalism’ which has circulated so many images and perpetuated so many myths, is true... It simply means that it has had and undoubtedly still has an essential role as an ‘indicator’ in the history of biology. And this is two respects: as a theoretical indicator of problems to be solved ... [and] as a critical indicator of reductions to be avoided.”⁴⁵

Critique and Metaphors

In arguing that metaphors are inherent in vitalism, as they are in other worldviews, we are left with the same challenge as we are with metaphors. Can they be critiqued? To attain some of the answer, we turn to another field of philosophy, esthetics, and to literary criticism (in literature, we distinguish between “trite” metaphor and “novel” metaphor).

What criteria are used to critique metaphors? Beardsley⁴⁶ identifies two principles related to explicating the meaning of metaphors:

- congruence, which is working out the permissible connotations of a term; and
- plentitude, which is working out all the connotations that can be attributed.

In a way, a metaphor is like a hypothesis and has the same problems as a hypothesis: does it account for the greatest number of phenomena (plentitude), and does it account for the most phenomena with the least number of variables—the law of parsimony in science (simplicity)?

Appropriateness

Metaphors also can be judged in terms of appropriateness. Mixed metaphors are generally considered problematic. “Good” metaphors as opposed to “trite” metaphors, are more complex—they convey more meaning. Like good hypotheses, they should make bold conjectures,²⁸ which imply more consequences. Feyerabend⁴⁷ argued that hypotheses should give radical alternatives and proliferation. So, one test might be the novelty of the metaphor—does it lead us to look at something in a new way, which leads to a whole set of alternative explanations? As we noted earlier, what distinguishes metaphor from myth is a robust critique. When the metaphor “goes underground” (becomes less

effective), it introduces fixed assumptions about the new that often are unrecognized, undefined, and uncriticized.⁴⁸ Again, to consider the metaphor, ‘the world is a machine,’ if applied to the human organism, it conveys a whole set of assumptions (baggage) that are inappropriate when applied to humans, such as the notion that pieces of the machine and the machine, itself, are replaceable and that it can be mended (cured) from the outside. It also conveys the idea that the machine is the sum of its parts. Using this metaphor, it is not necessary to postulate the idea of emergent forces, that the body is more than the sum of its parts, or to invoke the idea of vitalism.

This is the very basis of the critique that vitalism has offered of materialism. It is, within this approach, an inappropriate metaphor.

A method for critiquing metaphors, therefore, requires three steps:

1. Demonstrate that those using the metaphor (scientists, clinicians, etc.) have lost sight of the fact that it is a metaphor,
2. Demonstrate that the metaphor has “gone underground” or has become a reified concept (when the assumptions of the metaphor are transferred uncritically to the phenomena it describes and can be shown to be present), and
3. Demonstrate that the assumptions (the baggage) of the metaphor are distortions and discover whether the metaphor leaves out (suppresses) readily available evidence about the phenomena in question.

For example, the germ theory of disease clearly leaves out the fact that while individuals may be exposed to the same bacterially dangerous environment, only some individuals become ill. So, the germ theory cannot explain the distribution of illness. This led individuals, such as Andrew Still, the founder of osteopathy, and D.D. Palmer, the founder of chiropractic, to argue that germs may be the “excitation” factor, but not the causative factor of disease. To paraphrase Still, ‘health comes from within or not at all.’ Often, Still’s statement is distorted to claim that many integrative health practitioners do not believe in the germ theory of disease. This is incorrect—they do not believe the germ theory is an adequate and sufficient explanation for disease.

Coulter⁴⁴ identifies two other grounds for criticizing metaphors:

- The source of the metaphor may be inadequate. For instance, technology can be a powerful source of metaphors. Furnaces, pumps, circulatory circuits, telephone exchanges, computers, networks, and gates have provided powerful metaphors to describe the body. The pursuit of determinism has occurred largely through mechanical or technological

metaphors. But technological metaphors applied to humans is fraught with danger and in modern society have become a dominant source for our metaphors, to the extent that one writer has termed our fascination with technology the “Sorcerer’s broom.”

- Metaphors also can be animated (e.g., ‘the jaws of death’) and anthropomorphic (ascribing human qualities to inanimate, objects or animals). To refer to the vital quality of the body as a “spirit” or as an “innate intelligence,” is to anthropomorphize a physical thing. Again, both can be criticized as inappropriate, depending on when they are applied. In science, anthropomorphizing animals and generalizing from them to subjects has been problematic.

Contemporary Vitalism

Whichever position one wants to take on this issue, it is clear is that metaphysics (worldviews) plays a significant role in any discussion about vitalism: “it is necessary to emphasize from an epistemological point of view both vitalism and mechanism are metaphysical doctrines and that neither can be submitted to experimental control.”⁵

Federspil and Siculo⁵ suggest that contemporary vitalists are distinguished by the fact that they are methodological vitalists, because they do not subscribe to the vital principle which “inhabits the body and opposes and modifies physicochemical phenomena, directing them to a predetermined goal.”⁵

Yet, they do accept that knowledge of the parts does not explain the whole, and that this must be integrated within a unifying vision of the living being and “can be interpreted as phenomena adapted to preserve and transmit life. Today, nobody believes that living beings are inhabited by a soul or by a vitalistic force that opposes the physico-chemical forces and is even capable of their effects. The death of this kind of vitalism does not remove all vitalistic concepts, nor does it necessarily mean the victory of mechanistic metaphysics.”⁵

Therefore, the challenge for naturopathic medicine and for all contemporary vitalists is to ask, “can vitalism withstand a serious critique or has it become its own form of myth or dogma within the professions?” We propose this same question can be asked of contemporary scientific materialists.

Naturopathic Medicine and Vitalism

As we observed earlier, Snider et al¹⁶ describe naturopathic vitalism through the central naturopathic principle, *Vis Medicatrix Naturae*: “The healing power of nature is the inherent, self-organizing, and healing process of living systems which establishes and restores health. Naturopathic medicine recognizes this healing process to be ordered and intelligent. It is the 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.”¹⁶ Standish et al¹⁷ claim the *vis medicatrix naturae* is equivalent to the inherent organizing principle of life.

In *Diversity of the Vis*,⁴⁹ it is proposed that it may be more appropriate to refer to the *vis medicatrix naturae* as the healing power and process of nature—recognizing that the life force/vital force and the healing process function as an interconnected, complex system.

In describing vitalism in naturopathic medicine, I wish to draw on the work of William A. Mitchell,⁵⁰ he maintained that the vitalistic element of naturopathic medicine is to be found in the *vis* of *vis medicatrix naturae*. In his approach, *vis* is universal, but also is a form of internal intelligence, involving self-maintenance, and existing as a law of nature. That is, the healing power of nature exists as an external law of nature. But, more importantly for Mitchell, *vis* is an equation and is distinguished from vitalism in that the “*vis* is the framework in which vitalism has significance.”⁵⁰ In this view, the *vis* is the law defining the rules and interactions of the mind, body, and spirit. But Mitchell also suggests that *vis* is consciousness—an expression of universal consciousness: “Life is a manifestation of *vis* in a biological structure”⁵⁰ so that life is a manifestation of the consciousness of the universe. *Vis*, therefore, is the life force.

Discussion

Types of vitalism

The first question we might pose for naturopathic medicine is, “what type of vitalists are you?” Although there are several typologies developed for the variety we find in vitalism, we will propose only one here, that of Benton.²⁰ Benton identified three dimensions that can be used to distinguish among the vitalists (in his case, 19th century vitalists in science):

1. Degree of epistemological skepticism: that is, the degree to which they believed or did not believe in first or hidden causes. For the skeptics, speculation about underlying causes was frowned upon. So, while they may have talked about vital property or vital power, they offered no hypotheses about the underlying agency. This group Benton terms *phenomenalist*. In contrast to this were the realist vitalists who hypothesized about the nature of the vital principle. Their conceptions may have differed from seeing it as an incorporeal agent, to seeing it as distinctive material components, as forces or as powers.
2. Formal character of the explanations given: vital powers could be seen as analogous to minds or souls who operated rationally in terms of an aim or goal. This, Benton terms *teleological vitalism*. He notes that while this was not a big group in 19th-century science, it was the group usually identified with vitalism in biology. In contrast, vitalist physiologists believed vital powers operated according to blind laws of necessity. In this approach, these laws could

be discovered by observation (just as the laws of gravity can be without actually knowing what gravity is), but could not be reduced to the laws of physics or chemistry. They proposed “covering laws.” This Benton terms “*nomological vitalism*.” Another group stressed the variability of the vital powers and held that it was not subject to laws or to regularity. This group he terms “*non-nomological vitalism*.”

3. The fields in which the vitalism is located: here, Benton distinguishes “*morphogenic vitalism*” which focuses on biological attempts to explain developing organisms which, despite progressive increase in size, differentiation in structures, and increasing complexity, still remain integrated and functioning harmoniously as an adult. The explanation given by vitalists is that there are “rational” or “creative agencies” which develop the organisms in terms of a predetermined end. A second category he calls “*physiological vitalism*.” These were the physiologists dealing with the challenges of such phenomena as the organism’s independence from the environment and the constant internal organization despite constant interchange with the environment, animal heat, the resistance of living things to decomposition, the formation of organic compounds, the differences between the living and the newly dead before decomposition, all of which provoked vitalist explanations. A third category is “*chemical vitalism*.” This group arose from those working in inorganic chemistry and the realization that the laws and theories they were developing may not apply to compound substances which make up organic bodies. Where in Table I does Naturopathic medicine place itself? Do different Naturopathic doctors place themselves differently in the Table? (see Figure 1)

So, the question is whether naturopathic medicine can (1) embrace a metaphysical (worldview) form of vitalism or whether it; (2) adopts a more applied form, such as *vis medicatrix naturae*, that simply claims the body has healing and restorative powers, and remains silent about how that works, or; (3) accepts both. This is not an insignificant problem and can have significant consequences for the profession. It might behoove naturopathic medicine to determine how other disciplines within integrative health and CAM professions have addressed this. In chiropractic, although it is not the only issue that divided the profession, it is the case that the fight between the innatists and the rationalists greatly contributed to the schism in the profession and to what Coulter⁵¹ has termed the “chiropractic wars.”

Furthermore, as naturopathic medicine moves more into the mainstream and becomes increasingly involved in scientific research, it faces two new audiences: (1) it is recruiting students who increasingly have a scientific

background, and; (2) it is increasingly interacting with scientists in research areas. For both groups, metaphysical vitalism might not have the moral and intellectual force it had, historically, for naturopathic doctors. It might be necessary to extend, characterize, operationalize and explore it in more contemporary terms using areas, such as psychoneuroimmunology or systems theory, biofield science, spirituality and healing, or mind-body medicine.⁵²

However, the most critical question naturopathic medicine must ask itself is, “does the perspective of vitalism help us solve health problems for patients?” On the one hand, naturopathic medicine can derive and support a philosophy of health based on vitalism. This would include the idea that health is the natural state; the body has an innate tendency to restore and to maintain health through a process of homeostasis; departure from health represents a failure to adapt to both the internal and external environment; health is an expression of biological, psychological, social, bioenergetic and spiritual factors; disease and illness are multi-causal; optimal health is unique to the individual; it is the body that heals, not the provider. From these, the profession also can sustain a philosophy of health care which stipulates that care should: be holistic, vitalistic and humanistic, use natural therapies, be therapeutically conservative (believing that if the body heals itself, the best care is the ‘least necessary force ‘care); and employ a low level of technology. Within this philosophy, the health provider is simply a facilitator of health, and is an educator.

For many naturopathic physicians, defining its philosophy might be seen as a struggle for the soul of the profession. Yet, it is clear that naturopathic medicine is inherently metaphysical; vitalism has been part of that metaphysic since its inception; vitalism is the one feature it shares with all CAM health professions, some integrative health systems and indigenous world medicines; and each has a different way of expressing it (e.g., *qi*, spirit, innate, *dosha*, *vis medicatrix naturae*, vital force). If we conclude that vitalism leads to a perspective of health and health care that is uniquely beneficial to helping patients solve their health problems, then the next question becomes, “what expression of vitalism might provide the most clarity for patients, the public, the profession, and the scientists?” Nothing about vitalism, itself, forces naturopathic medicine to choose one expression over another, to use an animated concept or an anthropomorphic concept. As Henke⁵³ advised in 1991, “The more thoroughly the mind becomes imbued with the principles of science and methods of scientific investigation are reduced to habitual reactions, the more likely the individual will be to eliminate anthropomorphic conceptions from vitalism.”⁵³

The Future Of Vitalism In Naturopathic Medicine

In 1905, naturopathic medicine became part of a long tradition in the debate about vitalism. In 1968, Dix⁵⁴ observed:

The quarrel, which in the last 3 centuries has set mechanism and dualistic vitalism against each other, leaves untouched the older vitalism born with Hippocrates and Aristotle, which originates from a finalistic vision of biologic processes. If it is true that a soul that goes in and out from the organism, that inhabits one or other part, and that opposes and suspends the physicochemical laws does not really exist, it is equally true that in the whole we call organism, where an enormous number of cells exchange their messages and react in a coordinated way with the purpose of preserving themselves, there exists a common principle i.e., a unitary and finalistic organization of the vital functions. It is just such a kind of principle that Aristotle gave the name of soul.”⁵⁴ “an understanding of how life is expressed is not an explanation of life” and further “there is no explanation of life in terms of chemistry and physics and that such an explanation is, in fact, impossible.”⁵⁴

Three issues are worth pondering for naturopathic medicine: (1) Will the more we know from science mean the less we need vitalism? and (2) The historical belief expressed by Tsouyoulos,⁵⁵ when writing about the rise of modern clinical medicine and its relationship to German philosophy: “This hopeless situation of clinical medicine was the main motive which gave rise to vitalism. Practitioners expected vitalism to help them solve the problems of clinical medicine.”⁵⁵ Are we certain vitalism is not operating in naturopathic medicine in the same manner?

Can the worldviews of vitalism, holism, and scientific materialism rather than create a schism among naturopathic physicians,—become a collective, highly valued set of “radical design tools for health creation?”

Through utilizing vitalism as a heuristic, could the naturopathic profession come to reunifying around *contemporary* vitalism, and envision different futures?

Is there a powerful future where science, empirical practice and vitalism work together?

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