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DUELLING ONTOLOGIES: MIGHT VITALISM OFFER BALANCE AND VALUE?

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This article is part of a project investigating chiropractors’ beliefs on the role of vitalism in their philosophical and practice approaches and how that might contribute to addressing current epidemics of non-communicable diseases. It aims to present atomism, reductionism, materialism and mechanism as fundamental ontologies in biomedicine and to examine what role these might play in its struggle to deal with these epidemics; to present vitalism as a fundamental ontology existing in chiropractic along with these ontologies of biomedicine; and to discuss how imbalances in the use of these ontologies and practices stemming from them might be contributing to difficulties in addressing these epidemics. The use of more balanced approaches by chiropractors involving not only mechanistic biomedical ontologies but also an increased focus on vitalism might offer value in addressing these epidemics and should be investigated.

Key words: mechanism, vitalism, health, non-communicable disease, chiropractic, medicine

INTRODUCTION

Globally, a perfect storm of concurrent health and demographic trends is challenging many societies. Growing epidemics of chronic non-communicable conditions, such as obesity and type 2 diabetes, result largely from unhealthy lifestyles and spread across different age groups.1-5 In addition, the ageing of the large baby boomer generation and widespread low-reproductive rates combine to cause relative increases in this demographic group in many populations. Many retirees cease work, pay less or no taxes, live longer, and draw on government pension or other social security schemes. Smaller family sizes have resulted in a relative shrinking of younger demographic groups, meaning that there are proportionately fewer to work and pay taxes to support the growing medical costs of retirees.6-8 Many individuals experiencing these conditions expect that the cost of their drug, surgical, and high tech medical treatments will be borne by national and other health insurance systems.6,9,10

New models and systems of healthcare have been called for to more effectively, cost-effectively, and safely prevent and address these epidemics of non-communicable conditions, their causes and costs.11,12 Western medical approaches are largely based on mechanistic ontologies, which include atomism, materialism, and reductionism. These provide a particular frame for viewing health and disease. This article discusses possible fundamental philosophical reasons why these approaches are failing to effectively address the challenges posed by these epidemics, and offers vitalism and its modern manifestations as a different way of thinking in seeking solutions.

WESTERN MEDICAL ONTOLOGIES

The epidemics that Western biomedicine struggles to address involve the chronic non-communicable conditions that result largely from unhealthy lifestyles.1,13,14 Drugs, surgery, and medical devices attempt to palliate these conditions and associated symptoms. Western thinking, including that relating to health and disease, has its roots in ancient Greece, and Western medicine is philosophically based on a stream of ontologies which arose in the Greek doctrine of atomism and developed through materialism and reductionism to mechanism.15 As these are closely inter-related, they will be referred to collectively in this article as the mechanistic ontologies. In the following section they are each explained and relevant relationships between them and to modern medicine are discussed.

Atomism postulated that the cosmos is composed of only indivisible (atomic) particles and empty void, in which those particles exist and move. The absence of any intelligent force or energy to control this existence and movement is a key to the development of the mechanistic ontologies.16,17 Further, atomism suggests that everything can ultimately be reduced to...
particles. The joining together of these particles into matter leads to materialism, “the doctrine that nothing exists except matter and its movements and modifications.”

Development of the mechanistic ontologies was further influenced by the seventeenth century French philosopher Rene Descartes and three related concepts he posed. The first involved his analytic and reductive method for seeking knowledge. This included dividing the problem being examined into as many parts as possible and necessary to solve it, then deducing from these simplest elements to a more complex understanding. This is reductionism, “[t]he tendency to make supposedly comprehensive explanations of complex phenomena simply by analyzing and describing their parts.”

He also argued that the soul (also referred to as the spirit or mind) and the body are separate and distinct entities and that there is nothing in either that belongs in the other. This meant that responsibility for dealing with the metaphysical soul could remain in the realm of religion, and the physical body was best studied separately as a purely material entity, using mundane methods. This approach of excluding religion and the immaterial as reliable sources of knowledge led to his third concept, in which he saw no difference between the body and man-made machines. The body could be studied and understood as a machine devoid of soul, spirit, or mind. In this context, Isaac Newton later developed natural laws explaining the effects of forces on material bodies and described the universe as a giant machine.

This bolstered the influence of mechanism, “the doctrine that all natural phenomena, including life, allow mechanical explanation by physics and chemistry.”

The apparent explanatory powers of these ontologies and success of the use of them in science led to their application to biology and medicine and to the combination of them into biomedicine. This trend was illustrated in the influential Flexner Report, which in 1910 detailed medical education and practice in the United States and Canada. According to Flexner, progress in medicine depended on advances in the physical, chemical, and biological sciences, on which medical training should be based.

The human body was an infinitely complex machine, with its structure best understood by anatomists reducing it into pieces and its physiology via the physics and chemistry of living matter. Functions and systems such as muscle contraction and blood circulation were mechanisms best comprehended from a mechanist viewpoint, and nutrition was essentially chemistry. Biological sciences were studied in laboratories and clinical training in hospitals, which in many ways resembled laboratories. Pathology was learned on corpses devoid of life. The student was trained to follow the scientific model in practice. Flexner approved of the view “[t]hat the mechanical standpoint has richly justified itself is indisputable” and concluded that medicine was “...part and parcel of modern science.” Thus, for medicine, the person was best understood as a machine and the processes of life that made it different from non-living mechanical devices were mechanisms.

Furthermore, Flexner likened the diseased body to a city under siege, attacked by hostile enemies, against whom medicine prescribed military strategies, with the medical scientist “... the flower of the army, the imperial guard.”

This idea of the heroic doctor using the medical armamentarium to fight disease also stems from ancient Greece. The goddess Panacea (meaning “All Healer”) represented the knowledge and use of remedies against disease. From this developed the Greek Knidan school of medical thought, which considered diseases as entities or forces that invaded the body. The focus was on identifying the intruder by diagnosis based on symptoms and driving it out, frequently by remedies. In contrast, Panacea’s sister deity Hygieia symbolized the idea that those who lived wisely in moderation would maintain health, and from this developed the Greek Koan school of thought. This is reflected in modern understandings of hygiene, health promotion, disease prevention, and wellness lifestyle. These contrasting approaches remain with us today.

COMTEMPORARY MEDICINE

The influences of these mechanistic ontologies, Knidan thought, and Flexner have continued strongly into modern biology and medicine. As Pellegrino and Thomasma stated, “... the power of Descartes’ mechanistic biology became—and remains today—an enormous influence ... to the biological reductionists of our time.” This influence is so deeply entrenched that we fail to perceive it. “Cartesianism is the unspoken philosophical substratum of contemporary medicine—the source of its great strengths and equally of its deficiencies.”

Medicine now sees itself as a clinical science manifested in evidence-based practices driven by positivist sciences. In the West, its main practice model is allopathy, meaning “other disease.” Allopathy is “[a] system of treating disease by inducing a pathological reaction that is antagonistic to the disease being treated.” By this definition, this model deals with existing disease (not health) in a reactive (not proactive), antagonistic (not friendly) and pathological (not salutogenic, or health-creating) way. Congruent with Flexner’s military metaphors, its intervention is “treatment”, literally the “…management and care of the patient for the purpose of combating disease or disorder.” Even normal immune system function has been framed as war. As combat usually involves collateral damage, medical treatment is associated with substantial iatrogenesis and resultant human and financial costs. It might be argued that other approaches, such as the biopsychosocial or integrative models of medicine, have substantially influenced medicine to thinking and practices beyond the mechanistic allopathic approaches. However, the following data do not support this. In general medical practice in Australia prescription of medication has declined during the past ten years. However, it remains the most common form of management and is recommended 103.1 times per 100 patient encounters. Although 35.5% of problems managed in general practice were chronic, and 62.1% of patients were overweight and 28.0% obese, advice and education about nutrition and weight was offered during only 3 of each 100 encounters. Similarly, advice about lifestyle, exercise, smoking, alcohol and prevention was
offered in only 6.1 of each 100 encounters. In Australia, a call for new models of healthcare has been answered 10 years later by the "Health Care Home" proposal. While this proposal suggests a team approach to maximizing patients' abilities to manage their health, it promotes the medical general practitioner as the center of treatment of chronic disease. Indeed it states that many patients will recognize features of the HealthCare Home in their existing general [medical] practices. There is little new in this model.

Similarly, in the US, prescription drug usage has risen until recently, and 67.2% of physician office visits still involve drug therapy. Globally, drug usage patterns indicate that drug consumption had grown in all national income categories and different healthcare systems. Medicines treating chronic diseases are taking a larger proportion of total consumption, and a dramatic increase in production of such drugs will be required if these trends of increasing prescription and consumption continue as expected. Dossey argues that procedures based on the mechanistic ontologies still dominate Western medicine. These data suggest that he is correct, that biopsychosocial and integrative models have not been substantially adopted or effective, and that the allopathic approach of treatment of existing disease remains dominant. This approach is most effective in dealing with acute and infectious communicable conditions and injuries, but it struggles to safely, effectively and cost-effectively deal with the chronic, non-communicable results of unhealthy lifestyles. Something is missing and another approach is needed.

The major causal factor of these epidemics is widespread unhealthy lifestyles. These include lack of physical activity, overweight and obesity, abuse of tobacco, alcohol and other drugs, and poor nutrition. Medicine's struggle with these epidemics may relate to its basis in the mechanistic ontologies. Firstly, this approach largely addresses diseases which have developed slowly, are well-established before their signs and symptoms are noticed, and are the expected physiological conditions which develop as the result of unhealthy lifestyles. Reacting against, combating or managing these conditions, as does allopathy, is unlikely to be the optimal approach, as these conditions are not foreign intruders, but simply the body's best attempts to adapt to or deal with those lifestyles, or its inability to further deal with them. The underlying cause of these conditions is the life that has been lived, not the resultant physiology. Apart from lifesaving interventions at the advanced state of disease, solutions are needed to address the causes (the life lived), and not the effects (the condition named as a disease).

Another major causal factor is that the mechanistic approach neglects to focus on the whole living person. Rather, if a person can be comprehended as a machine, their body can be understood as multiple mechanical parts and their systems as mechanisms. For example, the heart is likened to a pump, the lungs to bellows, and the brain to a computer. This approach is problematic due to its mechanical view that problems in these mechanisms can be analyzed, broken down, and addressed by mechanical means. For example, dysfunction or disease at the macroscopic level can be "fixed" when arteries (pipes) which have become clogged as a result of an unhealthy life, can be replaced by a surgeon using healthy arteries harvested elsewhere in the body. At the microscopic level, dysfunction or disease can be understood as resulting from a malfunction in a step in a biochemical sequence in cells. If a drug molecule can be developed to stimulate, inhibit, repair or replace the problem step, it can be "fixed." The practitioner can be viewed as a mechanic who intervenes using technological products, devices and procedures developed by medical applied sciences to "fix" or even "heal," or "cure" the problems in the human machine. As part of what is termed the "health care delivery system," the practitioner mechanic is a "health care provider," supplying "health care" to the "health care consumer." The "health care system" becomes an industry, mass-producing, commodifying and mass-marketing the products and services developed by the medical applied sciences. Today's medical industry involves enormous amounts of science, manufacturers, products, services, delivery, providers, and consumers to pay for it. But it is not possible to manufacture, sell or buy health, and the epidemics of chronic non-communicable diseases keep growing. Something is definitely missing.

BALANCE

Balance between opposites was a key component of Greek philosophy. The Greeks believed that from an interplay between opposing viewpoints could develop a creative tension which could produce better answers in the search for knowledge and wisdom. However, if one viewpoint became too dominant, the resulting imbalance could lead to unproductive dogmatism. Perhaps the dominance of the mechanistic biomedical approach has produced such an imbalance today, and a restoration of balance might offer solutions to the non-communicable disease problem. This current imbalance may stem from the mechanistic biomedical approach's focus on what is wrong in the human machine and how to "fix" it by reactive mechanistic interventions, and its lack of attention to proactively supporting the life forces that keep the whole person living optimally. What might facilitate a return to balance, and to what the Greeks called phronesis (practice wisdom)?

A ROLE FOR VITALISM?

In contrast to the mechanistic ontologies stands vitalism, a different approach which might offer value and facilitate a more balanced approach to addressing lifestyle-related health challenges. Vitalism posits that living organisms are fundamentally different from non-living entities in that the origin and phenomena of life involve a principle, force or energy distinct from and in addition to the physical or chemical. This principle, which is usually referred to as "life" or "life force," has no place in the mechanistic ontologies. Atomism involves nothing in addition to atoms, with no intelligence or force directing the universe; materialism recognizes nothing in addition to matter; reductionism would involve reducing living things into their parts, which would kill them; and the machines of mechanism have no life force.
Vitalism also is derived from ancient Greece. A stream of philosophers including Plato and Aristotle posited the existence of an unlimited Mind, a non-material divine intelligent force, which imposed motion and order on and in everything, including the living.61 This concept lived on, and, in response to the emergence of mechanistic science in the sixteenth and seventeenth centuries, vitalists argued that mechanism could not fully explain life.62 Although mechanism now dominates science, discussion of vitalism continues.63–66

Vitalists acknowledge that mechanism contributes to understanding of the universe. However, in contrast to the perspective that all phenomena, even life, can or will eventually be explained by the actions of mechanical or chemical forces on matter, vitalists argue that the mechanist approach is limited. It misses an important and essential additional explanatory factor—life itself as a vital phenomenon that creates, guides and drives the living.67 Under the dominance of mechanism the deep phenomena of life remain largely unexplained. Is mechanism capable of explaining those phenomena, which may be immaterial? Vitalism, which seeks to understand the very essence of life, should be re-considered as a potentially valuable source of deeper understanding.68,69 and a contemporary “neo-vitalism” has been described as “… a recognition and respect for the inherent, self-organizing, self-maintaining, self-healing abilities of every individual.”69

Accordingly, in contrast to the Knidan and modern mechanistic allopathic approach of fighting disease, vitalistic approaches echo those of Hygeia and the Koan school, focusing not on the disease, but rather on the person’s life. Disease can be seen as a result of being out of balance with the natural forces of life, rather than from invasion by an enemy. This particularly relates to conditions which result from unhealthy lifestyles. The practitioner’s role is to guide the person’s life back to balance and health.28 Today, approaches to health which include a vitalistic component, such as osteopathy,70 homeopathy,71 naturopathy,72 traditional Chinese medicine73 and Ayurveda,74 have a similar emphasis on nurturing, supporting, removing interferences to and working with the forces of life—those phenomena which living things have and non-living things do not have. This approach also remains influential in chiropractic.

VITALISM AND CHIROPRACTIC

The chiropractic profession was founded on the ancient Greek concept of tone—a healthy balance of energy between opposites.26 Palmer, the originator of the discipline, explained that chiropractic involved both mechanistic and vitalistic components, and this dualism continues in the profession today.76–78 From the mechanistic perspective, Palmer identified that chiropractic was based on anatomy, osteology, neurology and physiology,79 and chiropractors continue to learn and use these basic and other clinical sciences.80,81 Some chiropractors lean heavily towards mechanism and seek credibility by focusing on intervention procedures used in the treatment of spine-related pain.82,83 Accordingly, the World Federation of Chiropractic sees the profession as “… concerned with the diagnosis, treatment and prevention of mechanical disorders of the neuromusculoskeletal system and the effects of these disorders.”84

In contrast, Palmer also alluded to the concept of “vitalism,” although he did not specifically use the term. He did frequently use terms such as “life force” and “vital energy,” thereby making vitalism an essential component of his explanation of chiropractic. Vitalistic approaches continue to be demonstrated in chiropractic.85–91 Some major chiropractic educational institutions describe their approach as vitalistic,92–94 and a contemporary “new vitalism” has been defined.95 A consensus process carried out in Australia, which has the third largest national population of chiropractors in the world, produced core values with clear vitalistic themes.96 Vitalism is alive in chiropractic.

This article is part of a project investigating chiropractors’ beliefs about vitalism and what value they believe vitalistic approaches might offer in addressing major challenges in health. The project will seek to establish what precisely chiropractors mean when they speak of vitalism; whether they believe that vitalistic approaches might offer value in addressing the epidemics of lifestyle-related diseases; and how. It will also ask whether this value should be sought in and limited to chiropractic spinal adjusting procedures and their effects on spine-related pain, or unlimited to include holistic effects on body function and health. If this holistic approach is supported, chiropractors will be asked whether their vitalistic understandings should be used to shift the focus of addressing these epidemics from the use of drugs and surgery to fight pathological conditions towards promoting reversal and prevention of them via salutogenesis, based on supporting people to live healthy lifestyles.

CONCLUSION

Globally, modern approaches struggle to effectively address challenges in health and disease. Balance between approaches based on different ontologies has been lost, and too much emphasis has been placed on the mechanistic approach and on treating established diseases. New models have been called for, but different thinking and approaches are needed. Re-examination and application of ancient concepts in contemporary forms might assist. Balance might be restored and more effective approaches developed if, while the benefits of mechanistic approaches are retained, additional focus is given to what value might be offered by approaches based on vitalistic thinking.

In accordance with its founding principle of tone, the chiropractic profession retains an energetic balance between mechanistic and vitalistic ontologies in its thinking, education, research and practice. The profession might be able to use this understanding to contribute to more balanced approaches that support health and life.

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