

Philosophy: the art of skepticism



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Today is Research Day at CMCC. It's a time when we suspend the routine, daily activities of the College in order to focus on just one part of the institution's mission. Not every chiropractic school has a research day, and so we may ask why CMCC thinks that research, and more gener-

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ally: scholarship, is so important that we should stop all the other things going on to think about research.

Indeed, not everyone agrees that research is all that important. The late Dr. Earl Homewood, former president of CMCC and the individual most responsible for building this campus thirty years ago, doubted the value of research. In fact, in one of the last of his many papers, published the year before his death in 1989, Dr. Homewood opined that in his four decades as a chiropractor he could not think of a single instance in which research had advanced the interests of the profession (Homewood, 1988).

Twelve years later, and with the benefit of hindsight, my guess is that even old Dr. Homewood, my cantankerous friend, will admit from his lofty perch in Valhalla that research has finally made a difference for chiropractors. The proliferation of high-quality clinical trials of manipulation and related conservative therapeutics has helped to open doors we once thought were permanently shut to us. In the United States, chiropractors are increasingly welcomed to hospital staffs, serve on state and federal policy making boards, and have finally managed to pry open the coffers at the National Institutes of Health. Overseas we have seen a proliferation of state-supported, university-based chiropractic schools, a phenomenon that was almost unthinkable during Dr. Homewood's career. And here at CMCC, just a few miles from D.D. Palmer's birthplace in Ajax, we are on the verge of a whole new level of sophistication and prestige. If anyone doubts the importance that research at CMCC and in the wider profession has played in the College's quest for university affiliation, I urge you to put the question to Dr. Moss or Dr. Mior or Dr. Mrozek. And if you wonder when the government of Canada is ever going to underwrite chiropractic research, talk to Dr. Vernon: he's already been there, done that! A million dollars may not be that much in the grand scheme of things, but it's an important start.

Of course, Research Day also has educational signifi-

cance for the entire faculty and all the students at CMCC. Since scholarly activities are often low-visibility, this special day provides an opportunity for all members of the college community to become aware of one another's investigative work. On Research Day, we pause to reflect upon the questions, the methods of investigation, the findings and the conclusions reached by those in our midst who pursue the unknown, sometimes the highly controversial unknown. Research Day provides an opportunity to recognize and reinforce those especially dedicated students and faculty members who have gone the extra mile for the profession. Most scholars and scientists receive few earthly rewards for their painstaking efforts, and some are even punished for their work. So today, on Research Day, we make a point of gratefully acknowledging and sampling the fruits of those committed, inquiring minds in our midst. On Research Day we thank the few who help advance the profession by expanding the knowledge base in chiropractic.

And yet there is another, perhaps even more important but frequently overlooked reason for Research Day. It's a matter of PHILOSOPHY! Research Day is the time of the year when we reflect upon, and practice, and re-commit ourselves to one of the most important aspects of philosophy, namely, the art and habit of skepticism.

What does skepticism have to do with philosophy in chiropractic, you may ask? The answer, I believe, is very little and very much. From an historical point of view, skepticism has been the single most deficient element in our principles. Oh yes, we have been critical of others, just as medicine has been critical of our beliefs, but our political feuding has generated far less light than heat. And, we have been much less likely to doubt our own theories and methods. Only in the last quarter century has the skepticism inherent in the scientific method raised its troublesome head in chiropractic circles. It was only twenty-five years ago that CMCC faculty members, including Drs. Adrian Grice and Ron Gitelman, collected what little scientific literature then existed to create what became known as the Chiropractic Research Archives Collection. Their work established a template upon which a skeptical science and art of chiropractic has begun to be built. But at the time, the best that could be said was that the limited scientific literature bearing on spinal manual therapies neither supported nor refuted their clinical efficacy. Now I ask you, did they do *baaaaad* chiropractic research?

Why should we care about skepticism in chiropractic? After all, you may think, we KNOW it works! (Or, in the immortal words of Harvey Lillard: "I hear ... it works.") Let me share with you just a few of the many beliefs that were, once upon a time, held with relative *certainty*, that is, without skepticism:

- The Earth is flat
- What goes up must come down
- The automobile will never replace the horse
- Human beings are unique among God's creatures in that we alone use language and make tools
- Man will never walk on the moon (no mention of women).

Coming a little closer to home, here a few ideas once cherished by doctors:

- Cigarettes are harmless
- Malaria is due to miasma: the cold, stagnant vapors arising from swamps
- Most cancerous metastases are caused by focal infections, often beginning in the teeth, which then spread throughout the body by means of the circulation
- Stomach ulcers are caused by stress; a milk-diet is best for ulcer patients
- Extended bedrest is the treatment of choice for low back pain
- Motion palpation is *obviously* far more objective and reliable than palpation for tenderness
- 95% of all dis-ease is due to subluxations of the spine, and the remaining 5% is caused by subluxations of the extremities, particularly the joints of the feet.

With very little effort, any of us could easily expand this list of once unquestioned "truths." But the point to emphasize here is that the reason why these beliefs have fallen into disrepute is because someone, somewhere, at some point, turned a skeptical eye toward the wisdom of the day and asked questions. And from their doubting attitudes and skeptical investigation, the chaff was separated from the wheat kernels, and a better understanding of our world was born.

The dictionary tells us that skepticism means:

- An attitude of doubt; the philosophical view that nothing can be known with certainty.

Maybe the dictionary doesn't go far enough. Skepticism

is not merely a philosophical viewpoint or position. Rather, skepticism is the *sine qua non* of philosophy, and for that matter, skepticism is (or ought to be) an essential characteristic of **all** scholarly and scientific endeavors as well. If we will not question, if we will not doubt, then we cannot learn, and our so-called philosophy becomes just the opposite: a dogma or “anti-philosophy.”

These notions may be troubling for some folks in chiropractic. After all, we are perhaps more accustomed to referring to our beliefs, our theories and sometimes even our clinical techniques as “philosophy.” We have too frequently acquiesced to the notion that one can have **too little** or **too much** “chiropractic philosophy,” as though there were countable quanta of belief that make up the “strength” of our philosophy. We have allowed the idea that there is “good chiropractic research” and “baaaad chiropractic research,” pro-chiropractic vs. anti-chiropractic research, when the real issue is (or ought to be) *high-quality* chiropractic research, whatever the results may be. Of course, when we speak of philosophy in terms of the strength of our chiropractic convictions, we betray our confusion between matters of faith vs. matters of philosophy. Whatever else philosophy may mean, it does **not** mean strength of conviction. Philosophy involves the art of skepticism rather than the habit of passionately unquestioned belief.

Please don’t misunderstand, I’m not saying that the principles that chiropractors adhere to, and by which they may define themselves, are not worthy. It’s hard to disagree with many of the seemingly legitimate, *a priori* assumptions and metaphors which guide the doctor of chiropractic. Holism, conservatism, homeostasis, the Hippocratic imperative, a more-or-less strategic clinical focus on neural regulation in health and illness ... these are all fundamental, but nonetheless provocative ideas. But

that’s the point: they **are** provocative, and **ought** to be questioned. Chiropractic principles merit intensive philosophical study by chiropractors. Perhaps like Mr. Spock, we ought to raise a skeptical eyebrow, we ought to “philosophize” about things chiropractic. Our principles ought to be the continuing input and output of philosophical and scientific discourse (see Figure 1).

Philosophy is the **active** process of doubting, questioning, probing our beliefs and methods in order to improve upon them and to improve the quality of care we offer our patients. Let me illustrate with a few examples of how even the most honored and revered of healers’ beliefs may be due for re-evaluation. Eugene Robin, M.D., Ph.D. was a clinical pathologist and ethicist at Stanford University when he authored *Matters of Life & Death: Risks vs. Benefits of Modern Medicine* (Robin, 1984). Dr. Robin reasoned that in light of the rapid advance of high-tech medicine during the past 125 years, it may no longer be possible, if it ever was, for allopathic physicians to adhere to the Hippocratic admonition: “First, do no harm.” The deliberately invasive methods of modern medicine and surgery make some degree of harm to the patient inescapable. Robin argued that medical doctors should explicitly acknowledge this implicit change in ethics by devising a new principle: “At least try to do more good than harm.”

You may or may not agree with Dr. Robin’s conclusions, and you might wish to contribute to the “throughput.” That is to say, you may wish to “philosophize” about the morals involved in medical (or chiropractic) practice. Great! And while we’re on the subject of hazards to patients, and no matter how much less risky chiropractic methods are, the adjustment invariably produces at least micro-trauma, does it not? Food for thought? Food for philosophical research? Should we be skeptical about the ethical values that guide the chiropractor in practice?

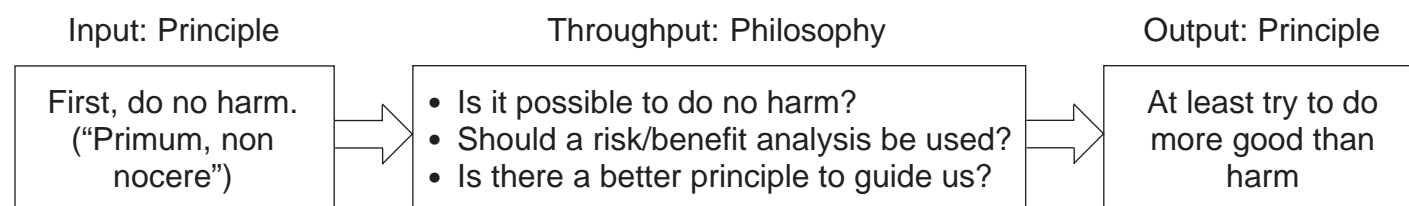


Figure 1 Relationship of philosophy to principles is illustrated by an imaginary (and simplified) philosophical analysis of Hippocrates’ maxim, “primum, non nocere.”

Dr. Thom Gelardi certainly thinks so. He's the founder and former president of Sherman College of Straight Chiropractic. Dr. Gelardi offers another conundrum. He has argued that the exclusive clinical goal of the chiropractor should be to find and relieve subluxations so as to allow the patient to achieve her/his own individual "maximum human potential." Dr. Gelardi suggests that we should leave the treatment of disease to the medicos, and our line of work should be strictly focused on subluxations. If patients have symptoms they want treated, they should go to their M.D. Dr. Gelardi will be happy for you if his adjustment relieves your headache, or clears your sinuses, or helps you stop bedwetting. But if your symptoms persist, if your agonizing back pain shows you no mercy, that's simply **not** his professional concern. For all he knows, your back pain may have nothing to do with subluxation. He's

quick to point out that if you have a subluxation, and if its partly or entirely responsible for your back pain, there's no substitute for a good chiropractic adjustment. I might add that I know Dr. Gelardi fairly well, and believe him to be very sincere, if misguided, in his beliefs. And I applaud him for making a genuine philosophical contribution.

Should we be skeptical? Should chiropractors be more concerned with finding and eliminating subluxations than with providing symptomatic relief to patients? What should our clinical goals be, and how should our clinical goals be molded by our ethical values? Would you refuse an adjustment to an agonizing low back pain patient if you couldn't find a subluxation? Would we be harming our patient, and violating our commitment to Hippocrates, if we refused care for a clinical problem for which the scientific literature tells us manipulation is probably effective? What do you think? Should we philosophize?

OK, let's try one more. Many folks in chiropractic have connected the idea of homeostasis to vitalism. And so we may have heard it suggested that "homeostasis is just another name for Innate Intelligence" or vice versa. Should we be skeptical? I think so. There are at least two serious problems with this reasoning. Firstly, homeostasis is merely a descriptive term referring to the irreducible properties or ontological characteristics of living organisms. Descriptive terms do not require explanation, and cannot logically serve as explanation. Indeed, when biological organisms cease to demonstrate homeostasis, we say they're **not** living, they're dead. We might say that homeostasis describes or refers to the life processes. But the Palmers taught us that Innate Intelligence "explains" biological function, as B.J. might say, "from above-down and inside-out." In this sense, homeostasis and Innate are clearly different concepts.

Should we be skeptical? Homeostasis doesn't explain the life processes, homeostasis **is** the life processes, all of them taken together, inseparable, both central and peripheral factors. We may try to identify all of the physiological feedback loops which comprise an organism's homeostasis, but when we have done so, will we have *explained* the mystery of life? Will we have identified the "soul" of the organism? What about the biological idea that the whole is greater than the sum of its parts? Does this mean that the whole must be *intelligent*? Of course, we may employ metaphorical terms for homeostasis, like "Mother Nature," or the "doctor within," or even "the Power that

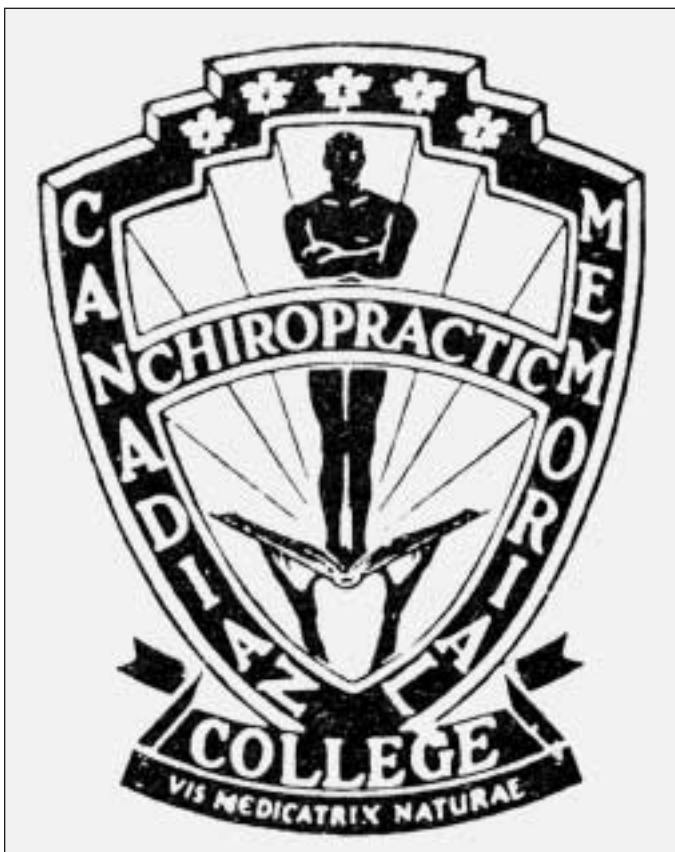


Figure 2 Logo of the CMCC features the motto: "Vis Medicatrix Naturae".

made the body, allelujah!” But metaphor should not be mistaken for reality, and poetry should not be confused with philosophy. I note that the CMCC has its own, more sober expression of this concept: “Vis Medicatrix Naturae.”

Secondly, if we casually and unskeptically substitute “Innate Intelligence” for homeostasis, we commit the fallacies of reification and anthropomorphization. Like living organisms, magnets also have ontological characteristics, as shown by the predictable patterns formed by iron filings around the tips of magnets. I doubt that many of you would attribute these patterns to an “intelligence” residing in the magnet, but that’s just what’s implied when we claim that Innate Intelligence “guided” the patient to health following an adjustment. Vitalistic or spiritual forces seem to be “innately” unobservable, therefore they are forever mysterious in biology. We cannot “explain” life or homeostasis or any fundamental phenomenon by offering a mystery as the explanation. We cannot explain the benefits of an adjustment by attributing them to Innate.

Have I tickled your philosophy bone? Perhaps I’ve created subluxations above the foramen magnum? Is there food for scholarly work here? Is there a role for skepticism in the science and philosophy of chiropractic? Can there be any science and philosophy without skepticism?

The next time you hear someone suggest that “Chiropractic is far superior to medicine, because unlike capricious medicine, chiropractic principles never change,” I hope your crap-detector will go off. The services of chiropractors probably are superior to those of medical doctors for certain clinical problems, and not for others. The challenge confronting us is to find out which patients with which problems will be helped by which chiropractic methods.

The next time you hear it suggested that “We know chiropractic works because it has never been disproved,” I hope you’ll run up a red flag, because the absence of evidence cannot be used as evidence. The next time you hear someone proclaim that the success of chiropractic adjusting proves the existence of the vertebral subluxation complex, will you ask whether the analgesic properties of aspirin likewise proves that headache is caused by salicylate deficiency? The next time a friend opines that millions of satisfied patients proves the efficacy of chiropractic care, will you ask whether millions of satisfied astrological customers likewise validates the so-called science of astrology? I hope that the next time someone

asserts that spinal manipulation relieves asthma, you’ll say with all sincerity: “Interesting. Where are the data published?” The next time someone insists that chiropractic care improves the immune system, I hope you’ll ask: “How do we know, what are the risks, and what are the alternatives for this particular patient?” We owe it to our patients and ourselves to be skeptical. Ask questions!

Admittedly, the skeptic’s trail can be lonely and difficult to follow, for any of us. Passionate and unquestioning belief in cherished principles and pet theories can be so much more safe, satisfying, emotionally appealing, and even politically useful (at least in the short-term). For some of us, we may hesitate to be skeptical for fear of being cynical, although skepticism, unlike cynicism, is not inherently negative or derogatory. (Actually, skepticism is an “innate partner” of open-mindedness.) Some of us avoid the skeptic’s path because we might bruise the egos of those whose beliefs we challenge. Some of us may think that the skepticism of science and true philosophy are incompatible with the role of the doctor, who, after all, wishes to exude confidence and maximize placebo effects in patients. These concerns are legitimate, but they do not constitute insurmountable barriers to critical inquiry by chiropractors.

Today, we have an opportunity to exercise our skeptical side. Today, this day, Research Day, is given over explicitly to reviewing and questioning the scholarly work of our students and faculty. Not only have they demonstrated the patience and endurance to generate new ideas and new data, they’ve agreed to stick their necks out, as it were, so that anyone can take a poke. Heck, you’re all chiropractors, so you know about poking and prodding and goading and thrusting. But here are a few pointers:

- Be kind. Use the same degree of finesse in poking ideas as you would in adjusting a joint. Palpate your topic, so to speak, and carefully, before you thrust.
- Be specific. Poke the research, not the researcher. (B.J. used to say that chiropractic was specific or it was nothing at all!)
- Be gentle. A student making her/his first-ever research presentation may tolerate much less force than the seasoned faculty scientist. You can poke *their* ideas a little harder. But watch out – they know how to poke back. :-)
- Have fun. Learning and skepticism are all about stimu-

lating the central nervous system so that good things may flow (as B.J. might say, from above-down and inside-out).

We have a good range of topics here today, with papers in biology, health care, social science and education. Soak in as much as you can, for there's no way to guess beforehand what will catch your fancy. And remember, skepticism is relevant in all of these disciplines. Let's be bold in what we hypothesize, cautious and humble in what we claim, and skeptical in our orientation to philosophy and science in chiropractic. And, may you be in heaven

two hours before the Devil, or Murray Katz, learns that you've passed.

Thank you for your time and attention. And now, if time permits, I really would like you to ask questions, and I'll do my best to try to answer them. :-)

References

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