

### The myth of progress\*



**Dr. Ron Gitelman, DC, FCCS(C)**

When invited to discuss my views on the role science has played in the *progress* of our profession, I was flattered – confused, however, that three more eminent speakers than I were chosen with the same mandate. Therefore you will forgive me if I call my presentation *The Myth of Progress*. For after 25 years of the academic life, I have spent the last 12 years primarily as a clinician and therefore I have a new perspective of the events.

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Don't get me wrong, I know that we have gained some legitimacy within the scientific community and health care system which 25 years ago was considered impossible by many.

#### **Why 25 years ago?**

Twenty-five years ago two watershed events occurred in the chiropractic world:

- 1 The Department of Health Education and Welfare to the United States Office of Education approved the Council on Chiropractic Education as the official accrediting agency for chiropractic colleges in the United States. Shortly after that Canada followed suit with its own accrediting agency.
- 2 Secondly in 1974, a senate report on appropriation for the National Institute of Neurologic Disease and Stroke of the National Institute of Health specified that: (and I quote) "that this would be an appropriate time for an independent and unbiased study of the fundamentals of the *chiropractic profession*. And such studies should be high among the priorities of the N.I.N.D.S." The first N.I.N.D.S. conference took place in Bethesda Maryland, February 1975.

It was decided at that time in order to insure participation the word **CHIROPRACTIC** would not be mentioned in the title of the conference. Hence it was named: *The Research Status of Spinal Manipulative Therapy*. This tactic proved successful and we were able to attract a very large multi disciplinary high quality group of scientists, (15 chiropractic participants and of which 8 of those were presenters) attended that conference. In retrospect, we may have made a mistake in changing the name to spinal manipulative therapy rather than chiropractic. Because of the many studies that have since been conducted, only 9 were conducted with chiropractic identified as the system used. The rest were either non-chiropractors or only manipulation and not chiropractic was mentioned. While it is

one of our unique methodologies one cannot study chiropractic only by investigating manipulation as if it were one modality in a long list of modalities of physical medicine. While manipulation is the main stay of our treatment we also utilize a plethora of soft tissue techniques including trigger point therapy, neuro-muscular facilitative techniques, muscle energy techniques, reflex techniques, myofascial techniques, exercise etc. with or without the use of apparatus such as traction and supports. Nutrition and hygiene are usually emphasized in the average practice.

Chiropractic is a holistic system of analysis, diagnosis, therapeutics, prophylaxis and rehabilitation. Our emphasis is on the whole patient, the individual and his or her environs. In the end, we believe that the body is self-healing, self-repairing, and self-maintaining if the prerequisites for health are present. The environs of this patient include the family, the community, the society and indeed the environment of our planet. A planet, which I may add that is suffering the effects of global warming, the loss of our water table, destruction of our rain forests, and the poisoning our air and drinking water etc. I am sorry if I digress to these environmental issues but they are near and dear to me. Saving the whales is no longer just a hippy movement. It has always been my vision that chiropractic would be recognized the "green profession" leading people in a more natural lifestyle, with reverence for our planet. Our reverence for Science and knowledge for their own sake is ultimately barren and probably dangerous for men with great knowledge in chemistry and little knowledge in biology have created these pollution problems which threaten the health of our patients and the very continuation of life on this earth.

As a result of the N.I.N.D.S. conference the senate appropriation subcommittee directed the N.I.N.D.S. to utilize part of its research grant program to stimulate and support additional basic and clinical investigations of spinal nerve root compression (we were still hung up to some degree on pinched nerves) and clinical investigations relative to manipulative therapy. It also recommended that periodic workshops be held where research results relative to the scientific and clinical issues could be reviewed and documented. This conference should have been the second N.I.N.D.S. conference not the one organized by Irwin Korr in 1977 at the College of Osteopathic Medicine at Michigan State in which only three chiropractors were

invited (one as a presenter). We were beginning to feel left out.

Our potential research personnel and facilities were quite limited. The development of the Archives and the future three volumes of C.R.A.C. at least served as a data base for the activities that were about to commence over the next 25 years. Today that data base seems paltry compared with the availability of the information found in the electronic data bases of today. Superimposed upon our difficulties were the attitudes of many field practitioners who felt threatened and indeed at risk by science and research.

Our accomplishments have been multiple over the last 25 years with the establishment of our graduate schools, fellowship programs, and interdisciplinary research. Texts were co-authored with other disciplines, such as *Modern Developments in the Principles and Practice of Chiropractic* edited by Dr. Haldeman. We had our first peer reviewed journal (JMPT) and eventually even our articles were appearing in other peer reviewed journals.

There was a price we had to pay when we entered into this research arena, because the research being conducted was utilizing a medical paradigm. That is, the individual components of the research question are reduced to the simplest measurable entity and then we do our research on that particular entity, ideally in isolation. It is very difficult, however, to do this and then apply this information to the dynamic whole which is more than the sum of its parts. Consequently time showed the chiropractors that inner examiner reliability and sensitivity of many of our palpatory methods were unreliable. Leg deficiency and tropism were meaningless and manipulation was only slightly better than bed rest and aspirin and equal to MacKenzie exercises in the treatment of low back pain. The Quebec Task force tells us "Yes we do have a relatively limited role to play in a positive way in whiplash associated disorder." With the publication of the asthma study in the October issue of The New England Journal of Medicine it reported that chiropractic had no positive effect on peak respiratory flow first thing in the morning of asthmatic patients and therefore was a useless treatment. It struck me as being unusual for us to even be studying this ailment brought on by a barely understood concoction of genetic, psychological, neurological and environmental factors including, on the basis of a study published May '97, the number of cockroaches in any

given area. The population that was studied was advanced in the pathological process to the point of using cortical steroids and inhalants and living in cities whose air was the most polluted in the continent.

Why in this limited population of asthma sufferers was only one outcome measure used with no validation of the sham treatment. In a recent issue of the *Journal of American Medical Association*, it was indicated that chiropractic does not have a significant role to play in the treatment of muscle contraction headaches. This is beyond me and it certainly does not reflect what happens in our practices. Many an asthmatic and headache patient who has done well under chiropractic care must have felt undermined as did the chiropractors when these results were reported. Worst of all, this resulted in an extensive report on national television's CTV network, demonstrating how useless chiropractic was in the treatment of asthma and then to make matters worse capped it off by stating that chiropractic was not only useless but that it could cause stroke and death as it referred to the tragedy that occurred in Saskatchewan last year. Yes, it is hard for the average practitioner to feel that research is going to improve his lot.

Then came the Glennerin or Mercy Guidelines which were produced as a result of *literature research* and consensus by the participants. It further threatened the field practitioners as they felt that they were being limited in the performance of their practice. They were, however reassured that this was a dynamic document which was to evolve as new research and information became available and that it was just a guideline and that it would never be used against them. That was 1994 and there have been no additional updates but both the legislature and the insurance industry have utilized our guidelines to limit our coverage and our performance.

All of these so called progressive events stemming from our research made the practitioner feel at risk. They felt threatened for their own livelihood and disturbed that the original concepts of D.D. and B.J. Palmer were being forsaken. Many expressed the fear that we would be relegated to no more than the therapeutic branch of bio-engineering with a very limited scope of practice.

The article that appeared in the JCCA by Dr. Lon Morgan, *Innate Intelligence – Its Origins and Problems* (an article, that I may add should have been written 25 years ago) acted as a lightning rod to these threatened

practitioners. There was a tremendous emotional outpouring of resentment from the field. Philosophic based organizations flourished. This was an article that told it the way it was but it did not, however, serve a broader purpose. It did not put the Palmer ideas into perspective with other ideas within the context of history and the development of those concepts beyond the early 1900's. Palmer's concepts were exciting from a historic point of view – so were Freud's but the science of psychiatry has progressed since then. In 1895, Madame Currie had not yet separated barium and radium; the primary source of transportation was the steam engine and not too many of us are driving them today. Sherrington had just discovered the reflex arc but the development of the role of the nervous system and its relationship with the auto immune system, the neurobiology, neurochemistry and behavioral neurology; all of these have evolved since then. So why should we be paralyzed in the thinking of the 19th century when we are now about to embark into the 21st century.

Let's face it. Palmer's concepts did not exist in isolation. He did not hear a voice in the middle of the night. His concepts were derived from vitalism, animal magnetism, radionics, and spiritualism as expressed by many great thinkers such as Hippocrates (perhaps the world's original holist), Thomas Aquinas and Mesner whose ideas were paralleled at that time by the great naturalist philosophers from Plato and Hume to Thoreau. If, therefore, we put Palmer's ideas within the context of the ideas of mankind there is no reason that the essence of his ideas should not have continued to develop over the next hundred years. There was a natural progression of thought as expressed by Sperransky, Whitehead, Renne du Bois etc., underlined by the ideas of homeostatic equilibrium as enunciated by Canon, the stress concepts of Selye, "the biology of purpose" by Edmond Sinnot as well as the doctrine of dualism and interactionism of Popper and the mind-body concepts and the relaxation response of Herbert Benson, the thoughts of Ian Coulter, Donnahue, Adrian Grice and Howard Vernon and yes, even the works of Andrew Weil and Bernie Siegel. If we were to layer these with a liberal covering of altruism and empathy we would have in our hands the modern *ever evolving philosophy* of modern day chiropractic which could *so excite* our students that they would never feel threatened as a graduate by the development of our science.

It is obvious to me that our schools have failed to do

this. It should be their mandate. For it is only at the level of the colleges (with their 14,500 students) that real change can take place. It must also be mandated that the teachings of the college must emphasize the promotion of health rather than the contest with disease. A shift in emphasis from therapy to prevention – from remedial medicine to prophylactic medicine, from a focus on late stages of disease to understanding the early departures from health. We must move away from the traditional model of pathologic medicine to one of physiologic medicine where the object is to help the patient achieve an optimum state of health and to continue in the best possible physiological path. We must graduate from merely treating dysfunction to teaching healthy living. Our curriculum rather than emphasizing intervention in biological processes must focus on seeking optimum operation of these processes through improving the condition under which they operate. Why do we not at least have a one hour lecture on smoking and illicit drugs as an addiction. The students must not be dominated by any view that limits them to see alternatives .

Western medicine has limited its effectiveness and its understanding of the disease processes by focusing only on the material aspects of the human being. For if we believe that all disease results from material causes that cuts us off from seeing a whole realm of causation where we could make positive changes to effect the lives of our patients.

Our students must learn that the ideal treatment is one which intrinsically produces an effect in the direction that you want as verified by experimental method whenever possible. It is also presented and delivered to the patient in such a way that it maximizes their belief system in the service of health. We have to get them excited about the fact that helping people get healthy is an adventure towards well being. *This is my vision.*

Without creating a strong philosophic basis for our profession , the pseudo religious fanatics will appear every time that they are threatened and they will recreate the old battle lines between the mixers and the straights. If we have a strong meaningful philosophic basis, it will make it untenable for the literature fascists to maintain their smug superior posture. We should have outgrown both of these positions years ago.

As I have said it is the nature of the medical paradigm to reduce each complex subject to be researched to its sim-

plest component. This of course was difficult for us coming at the problem from a chiropractic holistic paradigm. After our disappointment with Professor Alf Nachemson of Sweden, the good efforts of Dr. Gordon Potter of Saskatoon who introduced us to the remarkable Professor Kirkaldy-Willis which resulted in a productive marriage with Dr. David Cassidy. He understood the importance of dysfunction of the locomotor system as not only a prodromal stage in the pathogenesis of spondylosis but that this dysfunction plays a role throughout the process. We were able to communicate using a common language. He appreciated our diagnostic methodologies. We identified our diagnostic syndromes and as the research progressed we appreciated subdivisions of these diagnostic syndromes e.g. facet syndrome due to hyper motoricity and instability which could further be associated with disc degeneration and dynamic lateral stenosis. It was *really interesting*. We, as chiropractors were becoming more reductionistic with this research experience as we became able to more clearly differentiate the clinical lesion or discreet locus of pathomechanical behavior. But we knew that as chiropractors the secondary diagnosis was of equal importance to us, the secondary diagnosis being an assessment of the spacial ecology or the broader status of the statics and dynamics of the locomotor system of the patient with the specific lesion. Only after reaching these two decisions could we identify the syndrome and the therapeutic avenue by which we could deliver our treatment in order to influence that lesion and its neurologic components. It was our hope that future research would give us more information of the developmental factors leading to a spinal lesion and the adaptive mechanisms which the body adapted in response to the symptomatic lesion. At all times, of course, appreciating that the patient is in the midst of an on going process. If we had progressed in the direction of the secondary diagnosis, it would have helped us expand our structural models of the behavior of the neuromuscular skeletal system, the abnormal dynamics of movement, dysfunctions of the kinetic chains, disturbed postural homeostasis and their relationships to functional reflexes. *BUT* rather than expanding the diagnostic picture by including the double diagnosis everyone went the other way and they began to research the pain patterns, low back pain and/or leg pain and headache. These are symptoms not diagnosis. So, much of the research was on a clinical symptom using one modality called manipulation, *not*

*chiropractic care*. Otherwise, this progressive science seems to want to return us to the utopian position of 1910 – one disease (low back pain), one cause (subluxation), one cure (manipulation). – *The Myth Of Progress*.

Therefore without the emphasis of the double diagnosis, our structural models seemed to be watered down. Recently a simple survey of a faculty member showed that 5 years post graduation less than 50% of our graduates used the diversified approach that was presented at CMCC. Instead most of them had taken those *marvelous courses* presented by these system pedlars – I am bewildered. What allows them to throw away 4 years of professional education and 5 years of clinical experience? These systems are death to thought and they undermine our educational institution. They leave no room for research other than by their chauvinistic founders.

It was our hope that knowledge gained through research over the last 25 years would make our curriculum stronger. It was hoped that by now we would be closer to knowing the mode of action of manipulation and we certainly had hoped that by now we would have a better understanding of the functional disturbances of the locomotor system and their role in the overall health index of the patient. It was also our hope that we would have a better understanding of the pathomechanical states and the pain syndromes and neurophysiological effects as they relate to the statics and dynamics of the

neuromusculoskeletal system.

We knew that we were prepared for any knowledge explosion in the chiropractic sciences because we knew that the intelligence which created it could be utilized to produce the appropriate educational response. This does not seem to be happening as the researchers seem to be moving farther away from the classroom.

Fortunately, in this consumer driven environment with more people becoming disillusioned with medicine and prepared to take more responsibility for their own health we find that 1 in 5 Canadians in spite of Medicare are seeking and paying for alternate health care. This trend is growing at such a rate that it is predicted in the United States that by the year 2010, two thirds of people will be utilizing alternative therapies. Therefore if we centre our attention on our holistic approach and shift the prime responsibility from the practitioner to the patient as a source of health and agent of cure, our role as practitioner is to support and remove encumbrances from the natural processes of homeostasis, healing and recovery – thus placing the patient as a partner in the process. If we do this, we are assured of our existence as a profession.

I congratulate the Consortium, the University of Calgary and especially Dr. Herzog and his staff for organizing this conference. May new knowledge, new attitudes and deeper insights arise from our attendance, and most importantly may we define new and better questions.

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*Contact Conference Organizer:* Dr. Pierre Boucher

Université du Québec à Trois-Rivières

C.P. 500, Trois-Rivières, Québec G9A 5H7

Tel: (819) 376-5186

Fax: (819) 376-5204

e-mail: [Pierre\\_b\\_Boucher@UQTR.Uquebec.ca](mailto:Pierre_b_Boucher@UQTR.Uquebec.ca)