5. Subluxation as a fuzzy narrative

> 'The difference between science and the fuzzy subjects is that science requires reasoning while those other subjects merely require scholarship'
> Robert A. Heinlein

I will make my argument that within Chiropractic, the timeless idea of subluxation (1) in the 21st Century is expressed as a fuzzy narrative, my meaning for which I provide below. My method of inquiry is through my philosophical lens of Pragmatism as I have previously defended (2) and I apply classical philosophical argument using this lens of pragmatism to examine issues of ontological epistemology (3) within the discipline as my attempt to determine how we know what is happening in the practitioner-patient interaction.

Let me start with my developed paragraph tested to hold meaning in 17 languages; I discuss this in depth and give all languages in chapter 5 of the companion text to this volume, A philosophy of Chiropractic (XLibris, 2024:134-193). I refer to this English version as the

'Universal Meaning of subluxation in Chiropractic'

> 'The collective noun 'subluxation' is used within the discipline of Chiropractic by Chiropractors to predominately denote one or more clinical signs and symptoms evidenced on and by physical examination. Conceptualised as exhibiting elements of biomechanical dysfunction to variable degrees, subluxation may be identified in a specific joint complex of the spine, known as a 'spinal mobility unit', or other structures and is corrected manually using a hands-only controlled and rapid therapeutic thrust with intent. The thrust may be mechanically assisted. The outcome of such a correction is an adjustment of systemic neural tone which may be supported with lifestyle elements from nutrition to exercise'.

Now we know what we are talking about, my objective in this chapter is to establish a more realistic understanding of the subluxation in Chiropractic. My pragmatic maxim (4) is directed to the specific question of '*why do many different clinical approaches appear to achieve similar outcomes*'?

My interpretation biases (5) arise from my training as a Chiropractor and my truth is taken from the Pragmatist's Experienceable Difference test. In its most simplistic form this states that '*if an experience of a difference is shown, then something has happened*'. That '*something*' is always the most

plausible explanation (a little Bayesian) and exists only because it is experienced (a little empiricism as perception).

> An 'experienceable difference' occurs in vivo and is uncontrolled; it differs from any 'experimental difference' test in vitro which is controlled.

My Experienceable Difference Test

I give my experienceable difference test as it relates directly to this matter as:

> If the narration between a Chiropractor and their patient produces a therapeutic intervention to correct a believed subluxation and the patient is satisfied with demonstrable outcomes of clinical change then the narration is one of truth.

I appreciate the complexity of this test including the penumbra of the placebo and the perceived impermanence of phenomena, but consider these do not detract from my arguments. The experienceable difference is any clinical change and it holds a dualism in that it may be experienced by the Chiropractor through outcomes measures accepted as quantitative, perhaps documented in a validated PROM, and/or by the patient through subjective reports such as the 'patient voice' and autoethnographies. I use Cartesian dualism where the '*matter*' is any objective measurement made by the clinician (think measured range of movement) and the '*mind*'

element is the patient voice (think '*I feel better, with no pain*'; '*I can now think clearly*'). (6)

Structure of my argument

I continue this chapter in the form of a philosophical argument, starting with an Antecedent in which I give my operational understanding of a fuzzy narrative and my explanations of the way in which reality is constructed within Chiropractic as a discipline. I hold that a Chiropractor carries spontaneous unspoken trust in what they see and feel, with the paradox that they convey this by constructing and conducting fuzzy narratives.

Following my Antecedent I present four Parts:

- Part I establishes the context for my proposition that subluxation is a fuzzy narrative
- Part II is my Exposition in which I give the detail of my arguments
- Part III presents my Critical Discussion of my arguments, and
- Part IV is my Denouement in which I offer my conclusion to the given experienceable difference test.

Antecedent

The use of narratives in clinical practice, and in philosophical analysis of such practice, is akin to the use of models in physics, (7) the difference being that language is used as a social art (8) and, in effect, as a similitude. (9) When narration is used within the practice of Chiropractic

it is communicating to a patient something the Chiropractor has come to know about that patient in terms that are understandable and carry meaning. The principle of such a narrative is to express science-based clinical findings in common language and the challenge to the narrator is to keep these terms realistic and to not give-in to hyperbole.

> I am proposing that subluxation exists as a narrative about clinical signs and symptoms rather than as a description of a materialist entity. This narrative is used by Chiropractors to express in readily understandable public terms the clinical depth and breadth of Chiropractic practice as it may specifically relate to any one patient.

As with the conveyance of complex moral ideas (heaven, sin, purgatory, hell) embedded in religious teachings during the Middle Ages, today's narration in Chiropractic must convey the philosophical complexity of the discipline's clinical constructs (for example, neural modulation of brain plasticity, after Weiner, 10) as they are commonly narrated with the terms 'subluxation' and 'adjustment'.

In every sense the subluxation narrative in Chiropractic can be as simple or as complex as any model in physics with the difference being the narration carries the Chiropractor's clinical findings and intended therapeutic actions.

The patient narrates their own version of outcomes which can range from expressions of satisfaction with the care provided, values of pain reduction, and effects of functional

restoration. (11) This narration represents '*the patient voice*' in health care (6; and see chapter 6 Appendix 6.1) and is insightful and probably generalisable, but perhaps at times troubling because patient narratives also suggest to us what we may be doing wrong. (12)

I contend that the subluxation narrative in Chiropractic not only carries cultural value in a transnational context, but is the only method of communicating this clinical entity to a patient to gain therapeutic permission and confer ethically acceptable clinical conduct.

Understanding the meaning of fuzzy

'Fuzzy logic' is used to 'model logical reasoning with vague or imprecise statements'. (13) It is understood in a very wide sense to express degrees of some kind. The statement '*Phillip has a subluxation*' is fuzzy as the statement is imprecise with no information given in precise terms; even the person claimed to have a subluxation is imprecise with only an inference suggesting it could be me, the author, representing linguistic approximation. It follows that a 'fuzzy narrative' is a narrative given with linguistic approximation (14) and in this example the term '*subluxation*' is fuzzy as we have no idea where in '*Phillip*' it may be. We do not even know if '*Phillip*' knows he has a subluxation and if he did, what he may think about it.

The red ball

The classic example of an object that is fuzzy is given as a red ball, a ball which most people could describe as red on

the presumption most people know what a red ball could be. The fuzziness arises when we try to select the words we may use to describe this ball's redness; (15) should we do so in terms of hue (the dominant wavelength), saturation (the relative bandwidth), and brightness (the relative intensity of the energy output received by the retina)? This can be done but it becomes a technical exercise well beyond the capacity of every-day language to convey the final meaning which must be reduced to coded numbers. One graphic designer (16) gives 134 shades of red with names, each coded to HEX, RGB, or CMYK. We thus have 134 shades each with 3 different code-sets, or over 400 ways to describe red, in total.

The outcome is that our ball may well be red, in any one of 402 different code-sets, so it becomes simpler to state that the ball is reflecting light about the wavelength most people call 'red'. However with our knowledge of over 400 specifications for redness, we can only see this statement as an incomplete truth due to its fuzziness.

The kicker is that even when precise technical descriptors are given to consistently produce one particular 'red', humans as observers can not be relied upon to perceive or 'see' that singular construction as 'red' because colour is an individual interpretation of perceived electromagnetic radiation sensed by the rods and cones of the retina. Two people can 'see' the one object, perhaps a strawberry, in their own constructed illusion which does not mandate that 'their' strawberry must be the same 'colour' as my strawberry. (17) On the other hand and with no disrespect, a blind person may have little comprehension of what we are talking about. (18).

Herein lies the challenge with colour, explaining 'red' to

someone who has been blind for their entire life. To try to do so creates an '*explanatory gap*'. (19) We are further challenged by contextual usage, for example '*a stop light is red*' versus '*my accountant says I am in the red*'. The third challenge is appreciating that the word 'red' is limited to only the English language.

Every other language has its own term: aka or 赤 in Japanese; or gender specific in Spanish as rojo, feminine, or roja, masculine; it is 'ahmar in Arabic with meanings of red, tan, ruddy, or scarlet; ppalgansaeg or 빨간색 in Korean; or pula in Filipino with meanings of ruby, red, ruddy, Judas-coloured, or magenta. The point being that we have no way of knowing that my red is the same as your red, whether you speak English or not. Thus, what is 'red'?

> My analogous question is, what is 'subluxation'? From this I ask, why would Chiropractors imagine that what I call a subluxation is the same as that which someone else calls a subluxation? Especially in the absence of material dimensions?

Given that the answer to either is dependent on oscillatory, synchronous neural activity inputs, the question is a non-trivial matter of minute empirical details. (20) In this sense, both red and subluxation are fuzzy concepts.

Pain and subluxation are also fuzzy

The concepts of 'pain' and 'well-being' are directly relevant to any clinical narration by a Chiropractor especially if considered to be associated with a subluxation and are

perceived by the individual in the same fuzzy manner as colour; this is evident by appreciating that we cannot know whether my pain is the same as your pain, nor the terms that may be selected to represent the experience of it. And what is 'well-being' to you? Let alone to your patient in their own world? We clearly have an explanatory gap (19) and it is here I argue for the utility of the narrative (21) to competently fill this gap.

Subluxation as narrative

'*The healing power of narrative is repeatedly attested to but the scientific evidence is sparse*'. (22) I contend that the Chiropractic healing encounter is a narration between the practitioner, the patient, and their support person where involved. I contend that the ability of a Chiropractor to clearly narrate a story about 'what they think is wrong' to a patient is an important factor in the consistently high satisfaction levels recorded with Chiropractic care.

It is established that the 'story' has transformative power for healing. (22) Jamison has explored the role of verbal and non-verbal communication in the Chiropractic encounter (23) and sees it as '*bidirectional … both task- and relationship-oriented*'. Formalising the story-telling between the Chiropractor and patient as a subluxation narrative places a greater visibility on what it is that Chiropractors actually 'do' and what it is that patients extract from the healing encounter.

Ierano (6; Appendix 6.1) analysed the language used by over 300 patients to report their reasons for and outcomes from their individual Chiropractic encounter. He found

the 'patient voice' to be a story expressing the hermeneutics of patient suffering through the presentation and listening process of the patient expression. The subluxation narrative with such patients can only gain strength when referencing experiences deeply embedded within the patient.

This is very powerful in describing the outcomes of Chiropractic care in the Atlas Orthogonal (AO) paradigm.

Given the non-material nature of subluxation as it is known and used within Chiropractic there are difficulties with understanding, describing, and identifying it. Before resolving this matter in Part II, my Exposition, I will provide the context for my proposition that subluxation is a fuzzy narration.

Part I: Context

My interest in the phenomenon of subluxation builds on my structured inquiries including a Systematic Review (2) into the matter with the data indicating that over 80% of the world's 110,000 or so Chiropractors (24) use this term in some way to indicate their therapeutic target in the clinical environment yet I found no physical evidence supportive of any material thing and conclude that subluxation is not a materialist entity. (2)

I found ample evidence of there being a clinical phenomenon most Chiropractors identify as their therapeutic target along with many peer-reviewed Case Reports in the indexed literature showing an association between the identification then correction of subluxation and resolution of a presenting complaint. This finding reflects the enigma addressed in this

textbook where we have no material or physical dimensions of subluxation but evidence that subluxation exists, affects individual well-being, and is correctable with benefits in both objective outcomes measures and in patient reported subjective experiences.

My arguments address these variances in dialogue and the multiple forms of correction applied to a non-materialist clinical entity which is so well known it can be considered as 'established', albeit in a fuzzy manner.

Part II: Exposition

Argument 1: How a Chiropractor 'knows' anything and perceives reality

My first argument is that the term 'subluxation', as a collective noun, is best described as a narrated clinically problematic phenomenon to be addressed in a physical manner for correction, an act also suitable for narration. When these verbalised expressions are occurring within the practise of Chiropractic between a Chiropractor and a patient, they represent the subluxation narrative. I now show how such narrations are constructed.

About narration

Narration implies verbalisation and in turn this requires a speaker and a receiver, (25) the language not being important as long as it is common to each. Verbalisation requires knowledge of the thing being verbalised and it is here that the realists excel and the post-realists fail. I have earlier shown

(26) that the GCC rejected the idea of subluxation because the 3 academics advising one of their committees lacked the knowledge to provide the evidence requested. In turn, the GCC lack the intellectual finesse to realise they had been mislead by academics with questionable or missing knowledge, thus creating an antagonist dichotomy within the profession. Having made such a gross error public around 2010 it has been impossible for the GCC to recant.

The GCC narration (27) which is negative towards subluxation is now perpetuated on incompetent advice and feeble intellectual capacity to challenge and rectify. They meekly direct registrants to '*select and apply appropriate evidence-based care which meets the preferences of the patient at that time*' (27 #3 dot 1) which is bizarre given both the evidence supportive of the use of the subluxation construct in Chiropractic and the dismal lack of evidence supportive of bone-setting, which is their underlying construct of the discipline. (28, 29)

The GCC continues to refuse to 'know' what Chiropractic is and holds a discriminatory bias against the prevailing Palmerian model. The ethics of a such an authority acting in this manner is a topic for another critical discussion.

About 'knowing'

Leaving aside 'self-knowledge', which seems the basis of the GCC position and is a proposition fraught with '*competing accounts of how we achieve self-knowledge and of its epistemic status*', (30) the only way any human, and the agencies they create, can acquire knowledge is through one or more of

the senses leading to the brain. Then and only then can the creation of the Chiropractor's narrative arise as only any internalised idea can arise, and that is by assimilation in the mind of multiple electromagnetic inputs. In any clinical case these may include:

- sound waves as the patient relates their description of what they feel and how it affects them;
- radiation in the visible spectrum as the Chiropractor assesses how the patient is presenting;
- touch as the Chiropractor uses digital and palmar palpation to assess a vast range of inputs, from skin temperature to tensile tissue resilience and so on; and
- smell as the Chiropractor assesses for ketoacidosis and general hygiene, for example.

Taste is not really an acceptable nor meaningful direct input for Chiropractors however reports of changes in taste perception from the patient are helpful to certain working diagnoses. We must appreciate that nothing can exist in any normal human mind without at least one of these inputs, and therefore a Chiropractor cannot have any idea of any problem in any patient until they can see them, hear them, touch them and so on.

Our brain is inside a skull where it is dark, damp, and silent. It can only fabricate a view of the world and in the case of a patient outside the skull, by interpreting inputs; it can only 'know' about that patient by modulating and integrating a variety of inputs.

Providing meaning for our inputs

The clinical imperative is for a Chiropractor to interpret and make sense of these inputs about a patient, and it is here that a tested and well-accepted model provides the most valuable framework to organise the incoming data; the model provides the purpose.

> Unless the mind creates a purpose to collect data it will not know how to organise the data it receives.

Various models of subluxation have been published over the past Century and we appreciate that subluxation was known in a clinical sense and described in the medical literature from the 14th Century (1) and with a couple of medical theses on the topic. (31, 32) In general, the medical evidence of subluxation as a clinical entity is now extensive, (33) and has been for some time with physician Riadore noting in 1842 (34 p. 79) a potential anatomical change as: '*the spinal column became occasionally incurvated in consequence of incomplete or sub-luxation of the vertebrae*'.

Palmerian Chiropractors were the first health-care practitioners to attempt to describe the characteristics of this '*sub-luxation*' they and medical practitioners were addressing. Smith, Langworthy, and Paxson's 1906 textbook is a treatise on subluxation, (35 from p. 24) and its correction. (35 from p. 36) We must remember that these earliest attempts were reported using mechanical language, (36) reflecting the potent Industrial Age of North America.

Neurodynamic components were later clarified by Janse, Houser, and Wells in the 1940s (37) formalised by Homewood in the 1970s (38) and in 1995 Lantz introduced a multi-component model, (39) strengthened by Gatterman (40) and investigated by Sato et al. (41) Around the same time Leach gathered and reported a variety of Chiropractic and subluxation theories. (42) The multi-component models of subluxation are well described today (43) and have been exhaustively reviewed by Rome and Waterhouse. (44) Fully trained Chiropractors now know enough about this functional spinal lesion (45) to construct their own mental model for the purpose of gathering, organising, and interpreting their clinical findings.

The one thing they do not expect to consider is for the patient to point where it hurts as this epitomises the superficiality of the bone-setter's approach.

Why is there a variety of models?

The key question is why the discipline needs so many models for subluxation and the best answer I am now able to give is elegant in its simplicity; the reason for differing models is to cater for the highly variable narratives of highly variable clinical presentations of subluxation within highly variable Vertebral Subluxation Complexes. For these reasons the Chiropractor-patient encounter represents a 'complex problem', in the proper meaning of the term.

If subluxation was only a 'bone-out-of-place' we would only require one model but even DD Palmer rejected such simplicity (46 p. 95) and incorporated the neurological dimensions,

perhaps in an exaggerated manner to make the point his ideas about subluxed vertebrae were well advanced compared to basic bone-setting concepts. Palmer actually noted on the Frontispiece of his 1910 textbook that '*Chiropractic is founded on tone*'. (46, 47, 48) He related altered tone with subluxed vertebrae, thus it can be said that subluxation and its effects on neurological tone is Palmer's founding constitutional framework of Chiropractic.

However there are many ways to interpret this relationship, (49) hence the idea of perspectival truth which is, in essence, an individual Chiropractor's identification of subluxation in terms relevant to a particular patient and then their expression of this as a narrative.

> Practitioners using the title 'Chiropractor' while rejecting Chiropractic's constitutional framework by avoiding the identification and correction of subluxation are not in a position to style themselves as a Chiropractor, they are imposters.

I discuss the ethical implications of this shortly.

How a perspectival truth can be formed

It could be said that a subluxation is a clinical quandary within the spine in search of a logical and evidence-based narrative. Yet no matter what Chiropractors call this thing we can not make any inference that it is real in a materialist sense.

Argument 2: The responsibility of knowing

Here I argue that what the Chiropractor has come to know through their interpretation of perceived senses must be expressed as a narrated clinically problematic phenomenon to be addressed in a physical manner for correction, which is also an act conveyed with narration and which contributes to the construction of the subluxation narrative.

Thanks to mensuration on plain radiographs, 3-D reconstructions, and cine-radiography we have consistent physical evidence that certain objective examinations may record indications of spinal segments being in certain structural and functional dis-relationships which Chiropractors readily consider indicative of subluxation. (50)

We also have good evidence from Holt et al (51) that trained Chiropractors can, using palpation, reliably identify something in the spine which we may as well accept as being indicative of subluxation. These pieces of evidence are clinical cues and are meaningless until interpreted by a Chiropractor trained in the application of these cues in the clinical encounter.

However we need precision with our clinical assessment to be able to reliably extend our found and interpreted physical evidence to be descriptive of the nature of the sophisticated entity claimed to frequently accompany a subluxed vertebra, the 'Vertebral Subluxation Complex', (52) hereafter collapsed into 'subluxation' notwithstanding that technically, a subluxed vertebra is just one element of the VSC. I contend that the quantification of any believed evidence for 'subluxation' does not present a problem; the discipline has a selection of terms

and codes which embed meaning to influence subsequent clinical decision-making and therapeutic intervention.

> Yet no matter what we call this thing we can not make any inference that it is real in a materialist sense.

After Faye (53) the discipline has rejected the idea of a 'bone out of place' for the more intriguing interpretation that the effect is one of altered movement within a particular spinal segment's articular bed. This has given rise to refined interventions such as Atlas Orthogonal Technique (AO) (54) which combines segmental mensuration from clinical radiographs with palpatory findings to determine the vectors required to correct an upper cervical subluxation.

AO is a categorical sect within Chiropractic holding that all spinal issues reduce to subluxation of the atlas vertebra, or C1, and that all is revealed through radiographs produced in a specific manner which are then measured to determine optimal vectors of manual correction, aided by a mechanical device. It may appear as a bone out of place method, but to think this does an injustice to the complex neurophysiology and vascularisation of the upper cervical complex which is not evident among the boney shadows of a radiograph.

I would consider AO to be a high-level neurological intervention using perceived mechanical parameters as a guide, in a manner similar to all interventions addressing subluxation by trained Chiropractors.

Is reality conferred by shadows on a radiograph or perceived altered palpation findings?

My position is that nothing can be considered real; our entire human existence is a product of our mental faculties and our lifelong experience, and that the clinical evidence a Chiropractor gathers holds similar evidential weight to laboratory measurements which are, of course, impractical in the clinical environment.

My finding (24) that the greater majority of trained, licensed Chiropractors are comfortable with the timeless idea of subluxation (1) is satisfying as it encompasses the founding premise of the discipline from nearly 130 years ago in America's mid-West on the banks of the Mississippi, in Iowa. I have previously argued (2) that a Chiropractor creates the idea of subluxation as their perspectival truth and here I shall explain how I understand this process to work to the point it reliably allows consistently positive patient outcomes with remarkable patient safety.

The uniqueness of a Chiropractor seeking to identify then manually correct or 'adjust' subluxed vertebrae is rejected by European and British tributaries (55) of the profession drawn from bone-setters who, through an odd reductionism, no longer name a therapeutic target nor use the sophisticated thrusts which are the hallmark of the Chiropractic discipline, the ethical implications of this detached, semi-skilled clinical practice notwithstanding. One of that region's most academically impoverished regulators, the GCC holds to a position that any educational program which remained true to the founding premise and taught concepts of subluxation

could not gain its recognition as an accredited educational program. (56)

Interestingly, the World Federation of Chiropractic (WFC), the notional intercessory body of collected national professional Chiropractic associations, remains yet to publish a position beyond the curated statements of consensus from its numerous Education Conferences. (57) The 2006 conference agreed broadly that: '*the identity statements [of Chiropractic] covered the essence of subluxation in referring to the relationship between the spine and the nervous system, improved function in the neuromusculoskeletal system and improved overall health, well-being and quality of life*'. (58 p. vii, point 5)

This gives the profession a touch-point of conflict, where a position agreed by many institutions under the auspices of the World body is overtly contradicted by the GCC, a small registration body responsible for accrediting only several programs of education.

In summary, the concern of this textbook is this persistence of a tributary of self-proclaimed chiropractors (59) or poorly trained bone-setters refusing to accept the idea of subluxation (1) being '*the relationship between the spine and the nervous system*' and being central to Chiropractic as a discipline. This intellectual impoverishment of the GCC weakens the discipline within its jurisdiction.

Having established that subluxation is a perspectival truth best considered as a narrated clinical phenomenon I now present my arguments for how a Chiropractor constructs reality from perceived clinical findings by interpreting them and matching them to a mental map or a model, and from this

creates a perceived reality which determines one appropriate intervention from the many that are available. (60, 61)

A Chiropractor's constructed reality

> I contend that a trained Chiropractor will perceive a range of clinical signs and findings to assimilate within a mental map they hold as a model of subluxation and on reaching sufficient alignment will internally transfer that confirmation to the linguistic area of their brain to construct a narrative that integrates the report from the patient and transliterates it into phraseology that retains integrity with the patient's ideas while integrating the Chiropractor's ideas about cause, intervention, and effect. Inherent in this is the identification of a therapeutic target and agreed therapeutic outcomes.

The moment the Chiropractor relates this to a patient is the moment the narration becomes fuzzy.

This demonstrates a significant knowledge gap between the post-realists (62) who persist with their diatribe (63) of Chiropractic using a dated '*bone out of place*' idea. This is a bonesetter mentality (28, 29) which repeatedly finds no evidence of any effect, thus these simple folk resort to 'reduced pain, increased mobility' which is crazy and in stark contrast to the remarkable clinical success stories of positive effects that pervade the Chiropractic discipline. I can only propose

these elite are poorly qualified to even practice manipulation in that they lack a means of appropriating clinical data against known clinical criteria within a model of subluxation. To me, this raises serious ethical implications.

The moral and ethical imperative for clinical truthfulness

My ethical construct holds that post-realist practitioners who reject subluxation are not acting in an ethical manner when providing care they claim to be 'chiropractic' care. Terrett (64) and Assendelft (65) have each identified the issue of medical practitioners abusing the discipline in this manner, yet post-realist, small-c chiropractors who are doing the same seem to be accepted within the discipline, even as they attempt to restructure its language.

To fully appreciate my claim we must step beyond the four health-ethics pillars of autonomy, beneficence, justice, non-maleficence and the recently included pillars of confidentiality and honesty (66) and consider the Rawlsian Social Contract. (67) Philosopher John Rawls revived social contract theory in the mid-20th Century and we can draw on the idea of what he called 'public reason'. (68)

Rawls' principle of justice states that all social values, including resources like income and wealth, should be distributed equally unless an unequal distribution benefits everyone. From this flows the idea that access to Chiropractic care is a fundamental human right, and that all persons with access should have equivalent access independent of where they live with an expectation of equivalent care.

What this means is that when a Chiropractic academic

leads a student clinical outreach program, the quality of care delivered during that outreach program must be of the same quality as the level of care delivered within the on-campus university teaching clinic and contribute at an equivalent level to the student learning experience. (69)

This ethical principle ensures that the quality of care is consistent, and applies in the bigger picture to the discipline of Chiropractic in the global context, meaning that the ethics of Chiropractic are now essentially social. I hold that there is a moral and ethical imperative for licensed (registered) Chiropractors to identify the clinical lesion to which they intend to direct their therapy, given that this lesion has been known since the onset of medical writings. (70)

> It is an overwhelming public (social, 71) expectation that a Chiropractor will identify and correct subluxation and it is unethical for a personal calling themselves a Chiropractor and claiming to provide Chiropractic care to not do this.

As I have shown, the Chiropractor will match incoming perceptions to a mental model of a spinal lesion and then construct a therapeutic intervention to correct such perceived lesion. Within Chiropractic this lesion is overwhelmingly considered to be a subluxation in some form. Thus a common 'constitutional' intention exists and the patient has the ethical right to expect this as an element within the Chiropractor's care as provided to them.

> In summary the therapeutic intervention delivered in the name of Chiropractic is directed at a named target lesion in order to determine best practices associated with the therapy for such lesions.

This is the means by which the ethical dictate 'to do no harm' is fulfilled and the point at which both regulators and educators should be concerned. In the absence of any subluxation to correct, what is the student taught to do? And what are the guides for good practice in regulation? Indeed, what are they regulating?

Without such identification any intervention can only be vague, indistinct, and random, characteristics which do not enhance the specificity or intent of the applied therapy and which are not representative of Chiropractic as a discipline.

Thus when the discipline is practiced in a vague, indistinct, and random way those practitioners fail all ethical tests. The care provided is not in the best interests of the patient by not meeting the social expectations, and it is perhaps more likely to do harm to the patient. In this sense 'harm' can also be interpreted as 'not as effective as a subluxation-targeted intervention', or 'requiring more visits at the patient's expense to get a result'.

When did things change?

We know how the idea of subluxation has travelled through the health literature over time (1) which begs the question, from when has '*subluxation*' been unacceptable terminology

within the discipline of Chiropractic? The answer of course is that things have not changed and subluxation remains as the basis for the majority of Chiropractic practices; so why are a regulator (GCC) and a few colleges rejecting the term? I note that the most dynamic research group globally from the New Zealand College of Chiropractic continues to actively investigate the question (72, 73) while the haphazard European groups (74) and their companions (75) are succeeding with their attempts to show their erroneous concepts of chiropractic are ineffectual.

I suspect the answer lies in the way in which the profession has developed in certain countries as it spread from North America. Mind you, within its first decade a number of Palmer's graduates believed they knew better and broke away to form their own institutions, each with their own ideas. (76, 77) Today Chiropractic is taught as a higher education clinical discipline in about 52 institutions globally and maybe ~30% of Chiropractic educational institutions only recently became uncertain about how they teach the idea of subluxation. (78) The unacceptable irony is that no matter how dismissive an institution is of subluxation, they still claim their graduates are 'chiropractors'.

This mistruth is now exposed and must end. But we all know it won't end because Chiropractic institutions are accountable to no-one except themselves and, in many cases, the University in which they now find themselves which does not tolerate programmatic individuality.

The ethics of the post-realist position

In terms of Health Care Ethics there are two significant issues arising from the post-realists who provide treatment in the name of Chiropractic while neither recognising the constitutional framework of Chiropractic nor the imperative to 'do no harm' through their failure to identify a therapeutic target to which their intervention may be directed.

Let's take these one at a time.

1. Providing treatment in the name of chiropractic when one does not hold true to the fundamental idea of Chiropractic as it was founded by Palmer and recently endorsed by the Education meetings of the WFC, (57) namely that there is a relationship between healthy functioning and a small clinical lesion in the spine known throughout written history as subluxation.

   In legal terms this is fraud in the guise of misrepresentation of being a Chiropractor whilst not practicing in accord with known and proven Chiropractic tenets. This is also a breach of the Rawlsian Social Contract (67) with the one saving grace being that a very small number of the global profession, less than 2% of all at my best estimates, refuse to accept that the central tenet of Chiropractic has long been known as a subluxation.

   The more these therapists concede Palmer's ideas the more they hold a concessional, post-realist view. To be fair, most post-realists do not conduct clinical practice and instead fill roles as academics, researchers,

and chiropractic politicians, with the saving grace being that their exposure to the public is minimal.

However as a bombastic minority this group has professional visibility beyond their clinical limitations. Professionally this represents a danger to the discipline and clinically this represents a danger to the public. As we all know this opportunity to do harm to the public should be reason for a legislated body to reprimand them and rein-in their unfocussed clinical behaviours.

And

2. Failing to identify a target lesion for which evidence-based therapy must be rightly prescribed and provided. Without a specified aetiological target there is no clinical integrity when they claim to address, for example occipital headache, or LBP with thigh radiation.

   Perhaps this is the more egregious action of fraudulent practitioners in that they offer a primitive intervention which is known to carry risks in a manner that is non-specific and is not calculated to minimise known risks, rendering their intervention unaccountable.

   This is not the place to deliver an epiphany of health care ethics, suffice to say we have significant ethical problems when a target lesion is not identified yet an intervention of manual care is prescribed, not the least being a question of assault if the patient is not informed and has not consented.

Without being dramatic, this is the modus operandi of the bone-setter faction of practitioners who 'see' a spinal region with a clinical 'problem' by standards rarely given but are usually a 'reduced range of motion' with perhaps some 'painful movements'. Their reflexive intervention becomes a generic all-segment spinal mobilisation disguised as manipulation.

> Herein lies one of the concerns which prompted this conversation, namely does such ill-conceived intervention at times produce some form of positive response in the absence of a thoughtful evidence-based diagnostic assessment, the identification of specific therapeutic targets, and the application of well-designed therapies to address the perceived issue?

Perhaps future research inquiry should delve more deeply into the magnitude of clinical effect from Chiropractic intervention. For example, does a segment-specific Gonstead-style adjustment achieve maximal clinical improvement in fewer patient-visits than are needed from a generic manipulative therapist?

We must always remember that the risk of harm is greater with generic procedures especially when provided in the absence of radiographic evidence of the integrity of the boney structures being manipulated, paradoxically a badge of honour for the Danes (79) who still seem insistent on pre-selling 'packages of care'. (80)

Part III Critical discussion

The post-realists are acting with deceit in that their clinical constructs have failed to advance to the point where they are now practicing a different discipline while calling it by the name the discipline's founder gave while ignoring what the founder taught. This represents wilful ignorance, an ignorance which spreads like a canopy of darkness over bone-setting manipulation and excludes any and all elements of the vertebral subluxation complex (33, 52) completely ignoring published theories and mechanisms. (38, 40, 41, 42)

I stand to be criticised but not corrected for my reliance on Palmer's founding principle that small dysfunctions occur within the spine which may affect neurophysiological functioning and that trained Chiropractors may identify these and correct them, usually by hand. I hold that Daniel David Palmer discovered through clinical logic that he could identify then correct such small spinal dysfunctions. For the reason he did this using his hands the actions from which the discipline then developed was named chiropractic from the Greek roots meaning '*done by hand*'.

> Palmer's discovery was not the subluxation but the means to correct it and resolve its neurophysiological impact.

My strident, negative view of post-realist small-c chiropractors will be offensive to some, particularly those who fit the description through their concession of Palmerian Chiropractic and their robotic enactment of crude bone-setting manoeuvres on which British Chiropractic is founded, (29)

if not the entire European school of manipulation thought. (28) We know the negative influence of some untrained, self-proclaimed chiropractors on the discipline in Australia (59) and its education. (81)

How do you know '*this will feel tender*'?

My arguments about how we know anything, and in particular how a Chiropractor knows there is a high likelihood of a subluxation being where they say it is, is a rather basic concept yet one not commonly thought about. To some it may be a new concept, but to most it will feed into their understanding that the brain is a prediction machine. By this I mean the Chiropractor's mind is predicting what the fingers may feel and interpreting this input '*on the fly*' to fill-in a model of subluxation held elsewhere in their mind. For these reasons when a Chiropractor says to the patient '*this might feel a bit tender*' they are offering a phrase within the narrative generated as a fairly reliable prediction based on all preceding experiences.

The extension of this brain function is the post-correction narrative which also has to account for the predicted individual response of that particular patient, again based on previous learned inputs. That the brain is indeed a prediction machine will come as no surprise to any nurse who has worked in ED and developed an innate ability to read a patient and triage them for immediate care on nothing more than what the patient looks like and how the nurse 'feels' about that. Post-realist chiropractors delight in stripping all such clinical

acumen from Chiropractic perhaps because they cannot fit it in a quantitative box for replication or falsification.

If nothing else comes from this textbook it must be the appreciation that the identification of a specific therapeutic target is a high-order clinical skill. We should be celebrating our clinicians for being better than entry-level bone-setters instead of berating them.

Part IV Denouement

The error of the post-realists is that they have no target lesion. Their sole offering as a small-c chiropractor is to provide broad generic manipulation to a spinal region. No wonder their poorly informed research reports show little to no clinical effect.

Conversely, the power of the big-C Chiropractor lies in them identifying a spinal lesion which most call a subluxation and about which a narrative is created, shared, then acted upon. The patient becomes part of this fuzzy narration and brings their own observations to build the descriptive discourse.

> Within Chiropractic, clinical truth is what an individual perceives and the whole idea of pragmatism is that it does not have to be proven to a third party; rather we assign a '*truth*' when there is an experienceable difference following a narrated clinical intervention. The extension of this could be that where any placebo effect is real to the patient, so pragmatically it is true to them.

The doctor-patient interaction within Chiropractic occurs within a contained universe where information flows bidirectionally as narration. This does not alter the truth of the narration that what the patient told the Chiropractor is what the Chiropractor told the patient they addressed. This is the contained universe within which the success of subluxation correction happens on the basis of the patient's perception of the cascade of neurological effects we are slowly coming to know more about. (82)

Conclusion

Subluxation can only exist as a narrative because it lacks material dimensions and is instead known by its clinical effects. This view does not in any way negate the various mechanisms and models (10, 39, 40, 41, 42, 43) proposed for how a subluxation may be associated with such clinical effects. The observation that there are very many clinical conditions presenting to Chiropractors strongly suggests it is acceptable to hold that there are many 'types' of subluxation, should such categorisation be needed, then in turn many different clinical approaches to its correction.

The subluxation narrative can only be fuzzy because it is reliant on the Chiropractor's interpretations of the patient's descriptions. These characteristics do not lessen the reality of subluxation, in fact when the narrative places found clinical information against a well-known and described model, a reality is created which can be addressed in an ethical therapeutic manner. The fact this intervention is accompanied by both quantitative and qualitative evidence of benefit to the

patient is the constitutional essence of Chiropractic as it was founded by Palmer.

I conclude that it is the narration between a Chiropractor and their patient that allows a therapeutic intervention to correct a believed subluxation and when the patient is satisfied with the demonstrable outcomes of clinical change then the narration is one of truth.

In this sense, while subluxation is not real as a materialist would want it to be, it is alive and well in the majority of practices globally where fully-trained Palmerian Chiropractors, the realists, address and resolve subluxation many times a day to the benefit of their patients who perceive a real, experienceable difference in their health status.

And communicate this by fuzzy narration.

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