

Review of: "Changing chiropractic's subluxation rhetoric: Moving on from 'deniers', 'vitalists', and 'unorthodox', to realists, post-realists, and absurdists"

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I read with interest Dr. Ebrall's manuscript, and must admit that was disappointed, not so much by its content, as by its structure and the lack of a real intellectual discussion following the scientific method, as was expected considering the main objective of the manuscript. The author suggests that chiropractors and their rhetoric appertain to either a group of *realists* representing the large majority of professionals, or to one of the extreme groups holding views classified as *absurdists*. Those whose rhetoric is concessional (not sure towards whom or what), would fall under the category of *post-realists*.

Unfortunately, the rather chaotic structure of the manuscript, the poor citation of essential ideas presented and lack of argumentation for specific positions make this manuscript more of a commentary than a research paper. This is evident from the abstract, which is not structured in a way that clarifies what are the arguments presented in the manuscript that may lead to the author's conclusion. This is a recurrent problem that I see throughout the manuscript. Similarly, the introduction fails to provide enough background, particularly considering a potential multidisciplinary audience for this piece. The author does not present who is DD Palmer, what are the "founding principles", or where the idea that "small dysfunctions in the spine have an association with health and well-being" was presented. It is unfortunate that the author has decided not to provide any citations or further explanations here, which is again a recurrent issue throughout the manuscript.

As an example, the author refers to "(t)hose who make claims about values associated with correcting subluxation seem in my view at times to exceed reason, about which I am conservative", without explaining what these claims are, who makes them and what does it mean that he is conservative about them. Further, the author uses value judgments regarding those who express such positions ("happily accord"), which have no place in scientific writing, much less without support or explanation. The arguments used by the author to exert such criticisms throughout the text are often weak and unsupported, using terms and figures of speech that are not appropriate for scientific discussion. These are just some examples:

- the GCC's position is ridiculed as "caricature of buffoonery in the classic British manner" while providing no reasoning for this gratuitous insult;
- the author also attributes the GCC an agenda to "erase" the discipline, not only locally in the UK but globally, without providing any evidence for it; independently of whether this is true or false, the author contradicts himself regarding the power of influence of the GCC (its position has no validity outside of the UK but at the same time has been adopted by global representatives), while making unsubstantiated claims regarding its ultimate goals;
- the author simply expresses an opinion without providing support for it and using inappropriate terminology "(t)o me, this is a overt gaslighting";
- there are direct ad hominem attacks towards the WFC leadership "has no inherent organizational intelligence" without providing any argument in this direction;
- it is hard to understand what a reader should make of sentences such as "I consider the realist's canon to resemble more a linguistic bouillabaisse of over-statements and semantics than a consommé of common sense";
- the paragraph "There is something obscene... The Emperor stands very naked indeed" does not belong in scientific writing; it is clear that the author does not feel compelled to provide references for such claims, as they are simply his opinions.

One can find examples all over the text, often accompanied by an excessive use of the first person and self-citations with little to no explanation of the arguments supported by these references (as is often done in journalism or blog posting to motivate the reader to click and read further on the topic). Additionally, there are multiple errors of style that dramatically reduce my enthusiasm for this work: some abbreviations are not explained when introduced for the first time in the text (e.g., WFC in the paragraph *The ignoring of evidence by evidence-based post-realists*); some work referenced is mentioned but not properly cited (e.g., Ernst's work is referred to and the reader is asked to go to page 13 to see the work cited, which is not the appropriate page in the Pdf version); there is a citation that includes a full paragraph posted as a response to a question in the social media site *Quora*, that is also mere opinion and not even a consensus definition reached in that site; the figure before the paragraph *Post-Realists Vs. Absurdists* has no captions nor legend; and also, I am not sure of the meaning of the word *decatuech*, even being familiar with Simon Senzon's work (reference 48).

Despite these weaknesses, the author introduces an interesting term, "realist", which refers to chiropractors communicating a narrative of realism. He attributes this narrative to conventional chiropractors, although, oddly enough, peer-reviewed literature tends to refer to this group as "unorthodox", which implies quite the opposite. The author makes an interesting point suggesting that the reference to consider one professional group or the other as the "orthodox" one biases not only the label that is placed upon them, but also the views of peers and the public. Unfortunately, I do not believe a strong case is made defending or even presenting the different rhetorics. For instance, absurdism as a

philosophical construct is not defined, therefore, the case for categorizing a group of chiropractors as absurdists is weak, to say the least. It is also unclear why some non-chiropractors can be considered as realists, while others that were not trained as a chiropractor, qualify directly as absurdists. This seems to be simply based on the fact that they have made some sort of concession (unclear which), that the other non-chiropractors aligned with the author's point of view have not. One of the arguments proposed is that the "absurdists" defend the position of a fringe minority, only supported by around 200 "concessional chiropractors" that signed a position statement. The author claims that this group is not representative of the profession. While this may be correct, these signatories did not pretend to represent the profession, but rather its academic arm (200 signatures is a considerable proportion of chiropractors who actually publish scientific literature).

Most of the author's arguments revolve around his own biased definition of realism. Strong affirmations such as "denial of this idea is denial of clinical reality, or post-realism" are not supported by arguments or citations, excluding the author's own work. We do not know what is the evidence behind this definition of the clinical reality, in fact, we do not know what is meant by *clinical reality*? Is it what chiropractors believe they do in their offices? What patients perceive as the service that is delivered by chiropractors? How about other healthcare professionals? Why not researchers?

One of the arguments to support this claim seems also flawed to me. The author suggests that the concept of subluxation is timeless. Historical data, including Dr. Ebrall's previous publications do support that there is a historical record of the hypothesis that mild biomechanical abnormalities in the spine affect human health, as the author suggests. However, the concept as currently defined by chiropractors, failed to meet Hill's criteria of causation¹. Unfortunately, no amount of case reports mentioning a word make it more or less real. It is in fact accumulated anecdotal evidence of its use in clinical practice, as the author states, but not sufficient proof of its existence or validity. Instead, this could have opened a debate regarding a redefinition of the lesion addressed by chiropractors, as proposed by Haavik et al.² It is also possible that the chiropractic adjustment or manipulation could influence health outcomes without necessarily correcting a lesion, but instead, by triggering a cascade of neurophysiological processes that result in relevant clinical changes³. This has yet to be unveiled, yet the author makes no mention of it.

The techniques that base their paradigm on the concept of subluxation mentioned in the text are all at least 30 years old, when not 60. What about modern chiropractic techniques or advances in these techniques published in the last 30 years? In the same way, the literature cited to support the reliability for identifying a subluxation are either 32 years old (see reference 125: Plaughner et al.) or provide limited support for the use of diagnostic techniques, mostly to reproduce pain, but not a mechanical dysfunction (see references 126: Triano et al. and 127: Hariharan et al.).

Finally, the author argues that, despite a strong influence from the "Danish thought" in undergraduate training, clinical

practice in Scandinavian countries reflects that of “realists”. While it is possible that even in Scandinavian countries, the academics are “out of touch” with the reality of clinical practice, this is not completely supported by more recent data⁴. The references used by the author to support these claims describe clinical practice in 2009 and 2010 (references 114, 166 and 117), which may have significantly changed in recent years influenced by larger numbers of chiropractors being trained locally, as the author states.

Overall, I see this manuscript as more of an opinion piece, that misses the opportunity to present a strong case for a different perspective on the sempiternal philosophical debate that surrounds the chiropractic profession. Unfortunately, the author fails to define key terms to make his point. To do so, reality from a philosophical perspective, as well as the tools necessary to understand what the clinical reality of chiropractors and chiropractic practice are, should have been more thoroughly presented and discussed. Only after this is effectively done, post-realism and absurdism may be defined and discussed. It has been proposed that the reality of chiropractic practice has already been defined by the public (and legislators)⁵, and it is indeed quite different from what Dr. Ebrall claims. Although I concur with the author in considering that an intellectual discussion free of biases should occur, I am not convinced that the bases for such a discussion are adequately presented here. Glucina et al.⁶ recently reviewed similar concepts from a perspective that is also critical of the current orthodox vs. unorthodox classification, in a discussion that is both scientifically sound and philosophically engaging.

References

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