An Alternate Exploration of the Religiosity of Chiropractic: a Counterpoint

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ABSTRACT
In this paper, I argue against a proposition that chiropractic techniques represent religiosity. That unfortunate claim appears to have been advanced to support a position favourable to a medically-grounded evidence-based practice of chiropractic. I identify what may be seen as significant fatal flaws in that proposition and attempt to place the concept of religiosity as it may apply to chiropractic in a context worthy of respect. I write in the first-person style typical of philosophical papers and generate philosophical argument that support the historical path followed by those who worked to advance the profession. I draw upon a wide base of published argument relevant to the topic as published by acknowledged philosophers respected in their fields.

Keywords: Philosophy, Medical; Religious Philosophies; Chiropractic; Evidence-based Practice, Clinical Medicine; Histories, 20th Century [Chiropr J Australia 2016;44(1):33-42]

INTRODUCTION

An understanding of relationships between that viewed today as religion and various forms of health care is not only essential given the common origin of religion and health care (perhaps as far back in history as shamanism), it may also be informative to better help us understand why some health-care paradigms exist outside the mainstream of commercialised or Western medicine. I have elected to look at chiropractic on being prompted by recent publication of an attempt to explore parallel issues[1].

Many of the threads evident in my paper are drawn from argument published in the *British Journal of the Philosophy of Science* by philosophers such as Nicholas Resecher,[2] Bert Leuridan,[3] Michela Massimi,[4] Conor Mayo-Wilson[5] and Russell Powell and Steve Clark,[6] among others.

DISCUSSION

Reasons for Exploring These Matters

We may first ask whether characteristics attributed to religion evoke little sympathy among modern chiropractors (after Resecher[2]). Two arguments appear to support this proposition. The first has to do with what may constitute religion. Young[1] argues a somewhat traditionalist's view and proposes a series of delimiters that he feels allow religion to be characterised by several descriptors. The question is whether it is reasonable to apply these descriptors to a health care discipline.

The other has to do with the contrast of a significantly dated origin of such views with the development of a dynamically evolving health discipline. It would appear to be a poor service to any group with this characteristic to resort to founding concepts, precepts and the language in which they were prefaced a century ago as representing mainstream thought today. A position of this nature suggests Young's critical comments are steeped in history, and from this develops an argument as to the relevance at this time if such

relevance could be other than to demean and belittle this clinical group based on some aspects of some of its contemporary practices.

There is a third consideration, which goes back to early precepts that argue healing arose from religion and that the 2 are actually inseparable. This is a brave argument at this time of the 21st Century as it creates a direct conflict with the prevailing view of commercialised science, which in turn appears intimate with commercialised medicine and suggests that every act of a healer, known today as a clinician, a noun on the same lexicographical spectrum as technician, must be based on the published views of a group. Were this view to have currency today we would find indubitably that mankind could believe the earth was again flat if for no other reason than a greater group argued the earth was flat.

The challenge of Interpreting History for Contemporary Critical Comment

Mayo-Wilson[5] appreciates that in medicine and the social sciences, researchers must frequently integrate the findings of observational studies which measure overlapping collections of variables. The range of historical quotations reported by Young[1] are taken as being representative of an individual's integration of findings *of many observational studies which measure overlapping collections of variables*.[5] As such it represents a work of some breadth.

The first problem arising from this broad-brush approach is the attempt to interpret language of a particular age and time within the context of a process of science unique to our current era. This highlights, by necessity, the conflicting world view as demonstrated by Simon Senzon.[7] For Senzon, the world-view seems neither black nor white, but takes "a transitional approach that includes the partial truths of all perspectives."[7]

A second problem presents as the separation of the expressed quotes used by Young[1] from which he draws his judgements from the cognitive beliefs of the individual cited and the lack of comment as to whether the expression of such beliefs was more a very early attempt to set needs, expectations and priorities for an organised approach[8] to a sub-system within a divergent health-care discipline, itself within a divergent health care environment.

A weakness is the lack of evidence of continuity[9] between the original expressions that Young used as the basis for his judgements and the actual application of those expressions today in various types of clinical practice, each supposedly replicating the original expression. Others[10] consider there is an importance of the relationship between evolution of human cognition and cultural evolution. And as noted, these lie across the schism which commercial marketers today may term as the 'brand of god' as followed by various groups, where the choice appears as diverse as fast-food chains.

My argument would act to discount the validity of using snapshots of past expressions for two reasons:

- Any evidence of religiosity is more likely an artefact of the time and place in which the utterance was offered for the purposes of connecting with the audience of that time. It has been shown that a linguistically competent and cognitively mature population interprets situations of action, desire, and belief as cues to describe these in mentalistic terms;[11] and

- The possibility such utterances were offered with the intent to project an order of clinical thinking, today celebrated by some as evidence-based practice, with a view to ensuring longevity of a particular approach for long-term future benefit. It has been argued[12] that the neural processes of temporal judgment (as in, what is this learning of a technique approach costing me now?) and reward valuation (what will it let me achieve in the future?) could be directly or indirectly linked, in several ways. Cooper et al[12] argued 1 possibility is that judging prospective future durations itself activates the ventromedial prefrontal cortex and ventral striatum, and that the activity observed does not explicitly or implicitly reflect valuations. Under this account, neural activity is predictive because the perception of future durations predicts discount rates. It also suggests religiosity plays little to no part in judgment, strengthening my argument that any thread of religiosity may have been used as only a culturally-relevant communication tool.

The Notion of Religion

The notion of religion is well beyond the scope of any single paper, and certainly this one. Powell and Clark consider religious belief and behaviour to be puzzling phenomena.[6] They demonstrate that religious phenotypes are not readily amenable to conventional selectionist explanations, yet Young[1] takes a reductionist view of the construct of religion based on the enumeration of variables. These are:

- Supernatural concepts relating to a belief in a supreme power
- Claims of supremacy to others that are similar
- Rules that must be followed, including carrying out rituals
- Sacred artefacts, often utilised in the rituals
- Sacred stories, and
- Special language.
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A more mature approach to understanding religion is given in work published elsewhere in *Br J Philos Sci,* for example Powell and Clarke's article[6] arguing that evidence for the Standard Model (SM) is inconclusive and that the case for it depends crucially on its alleged methodological superiority to selectionist alternatives. A selectionist alternative may include viewing religion as an adaptation with a genetic basis, an adaptation of cultural groups, or as a pluralist view.[7]

However, they show that the SM has both methodological and evidential disadvantages when compared with selectionist alternatives. They also consider a pluralistic approach, which holds that religion or various aspects of religion originated as byproducts of evolved cognitive structures but were subsequently co-opted for adaptive purposes. Young[1] shows evidence of evolving a cognitive structure for the limited purpose of advancing a certain viewpoint of health-care which in turn adds little to the broader discussion. Powell and Clarke continue to argue that when properly formulated, the pluralistic approach also has certain advantages over the SM and conclude there is no good reason to prefer the SM to selectionist or pluralistic alternatives.[6]

A tendency becomes apparent in the arguments of Powell and Clarke that features of cultural transmission are more problematic[6] and again this raises the significant question of why Young[1] has resorted to such tools when they are considered in philosophical circles to be faulty. Indeed, a proposition of relevance could be Young 'moralising the high ground' as argued in another but very similar matter by Shariff *et al*.[13] It is not my intention

to suggest Young has taken such an approach; rather, is it more to suggest to the consumer of his writing within an environment that may only be considered promotional of a certain viewpoint, that there are perhaps more problematic features he has failed to consider while advancing an argument that 1 particular discipline acts as a cultural transmitter for a limited view of religiosity within a clinical context.

After all, what is religiosity? Is it the view of Jehovah's Witnesses (late 1870s[14])? They would think so, yet those who adhere to Christian Science (about 1875[15]) may think differently. The historical period that saw dramatic changes in world societies, such as the shift from the Meiji Dynasty in Japan, the discovery of how ionising radiation could be harnessed to create X-rays, the development of petromedicine and antibiotics, paralleled the explosion in religiosity. To the aforementioned we could add the Theosophical Society 1875[16] and earlier, Mormonism (1820s-1840s[17]). These developments in religiosity are more or less concurrent or act as immediate precedents to the discovery, development and attempted explanations of chiropractic as a distinct paradigm of health care.

The run of new religious ideas continued with the pseudoscience Dianetics in 1950[18] from which developed Scientology. The 6 models of religious thought specifically identified in this paper, each on their own render a challenge to Young, who literally generated a plethora of interpretations to draw on.[1] This confers a responsibility to use it at a high level; however, his simple analogy of an early developer of chiropractic as a health care discipline, B.J. Palmer, as 'Christ-like,' immediately forges a schism between Christian and Non-Christian religiosity.

Boyer[19] cites an argument that the comparative success of religious variants, such as the examples given above, is determined by their psychological properties which enable them to spread between 'brains with massively similar conceptual architectures, composed of functionally distinct capacities specialised in different types of objects and problems." I shall return with an extension of this argument when proposing why there are variants of approaches to the clinical practice of chiropractic.

Young[1] has an absence of any space-time perspective or argumentation that could relate the real with the imaginary[20] within the culture of a developing health discipline. It is here that Boyer's argument[19] as given by Powell and Clarke[6] may be extended to chiropractic as a health discipline. An essential point of Young's article[1] is that chiropractic practice today is presented with many variants of clinical technique or approaches or systems and he describes some 22 or 23.

A clinical technique reductionist would understandably prefer to reduce that number and in the absence of justification for being readily able to do so, could comfortably resort to debasing individual variants by reducing each to an expression based on comparison to religion. The two flaws in this approach are:

> (a) The assumption that past expressions of religiosity have a place in contemporary healing; and
> (b) Comparison to religiosity only as practiced in a white Anglo-Saxon Protestant country.

The pursuit of this dual-flawed approach could be intended to result in a reduced number of clinical techniques or approaches or systems which may be thought of as better facilitating the application of a stronger level of control over variables that in turn may allow

greater homogeneity in outcomes that could more strongly favour a poor conception of an evidence-based approach.

The first proposed flaw has actually been described as an advantageous approach by some contemporary observers. Manglos and Trinitapol[21] suggest that faith healing should be considered as a third therapeutic system, which should not be conflated with either biomedical or traditional modes of healing. Schiltz et al[22] report some evidence relating to Distant Healing Intent (DHI) but find that an explanation why meta-analyses are providing ambivalent conclusions about the efficacy of DHI is that distant healing effects do not exist. From that perspective, the occasional positive report of a properly conducted DHI study is best attributed to a statistical false positive or to selective reporting. An alternative explanation is that DHI effects do exist, but the relevant variables that modulate these effects are not well understood and interact in complex ways.[22]

Questions around the effect of prayer to a god, a component of religiosity, are considered by Andrade and Radhakrishnan[23] to be unsettling to those who pray because of their theological implications, but they are also unsettling to medical scientists because they challenge the design, analysis and interpretation of randomised controlled trials of the efficacy of intercessory prayer.

The second proposed flaw does not seem to appear in non-Christian practice environments, such as those found in Japan or China, rendering it an invalid proposition in a global sense, a regrettable constriction.

The Internal Conflict of Religiosity and Variants of Clinical Practice

A conflict arises when applying Boyer's argument[19] regarding religious variants to an understanding of why there are variants of approaches to the clinical practice of chiropractic. I propose these different approaches are, in the words of Boyer, determined by their psychological properties which enable them to spread between 'brains with massively similar conceptual architectures, composed of functionally distinct capacities specialized in different types of objects and problems'.[19]

This argument allows a type of parallelism united by cognitive behaviours that may in fact point to expression of religiosity as beneficial. Lucchetti at al[24] reported a multi-centre study involving 5,950 medical students from 12 Brazilian medical schools. They found 71.2% of medical students believed that spirituality has an impact on patient's health and that this impact was positive (68.2%).[24] Evidence seems to be emerging to suggest religiosity and spirituality might promote mental health by protecting against the onset of depression in populations contending with both acute and chronic stressors.[25] Schettino et al conclude a moderate amount of religiosity appears to be associated with improved treatment response to antidepressant medication.[25] They propose these findings could have important implications for clinical practice that might benefit treatment.

A number of other recent studies point to similar conclusions. The findings of Rabinowitz et al[26] are reported as lending support to the notion that discrete dimensions of religiosity differentially and interactively (with ethnicity) influence health behaviours.[26] Others have found evidence that distinguishes between spirituality and religiosity among hypertensive patients and recommend that when treating patients or implementing medication non-

adherence intervention programmes, considerable emphasis should be on the dynamics of the effects of spirituality, not necessarily religiosity.[27]

It appears there is sufficient clinical relevance in religiosity for it to have power within the clinical environment to affect even sexual and contraceptive behaviours.[28] Gold et al found sufficient strength in the statistical relationship to allow religiosity to be recommended as an independent predictor of multiple sexual behaviors directly linked to important clinical outcomes such as pregnancy and STD risk.[28]

It is not yet clear whether the religiosity of the clinician or care giver has negative effects on that person[29] or whether the complex outcomes[30] that are starting to be reported are more associated with other factors within the continuum of care.

Another social-science dimension that may have relevance is the therapeutic intent of the caregiver. I appreciate there is a wide gap between intention and behaviour.[31] The intention-to-treat principle is critical because it results in unbiased and consistent interpretation of treatment effects, while analyses based on compliant subsamples are invariably biased.[32] This would seem to be a very important consideration for those promulgating a data-driven approach to evidence-based practice, yet it seems to be rarely considered, thus raising significant questions as to the validity of the arguments behind such social change within health care.[33]

It is directly relevant to the clinical practice of chiropractic as a form of manual medicine that other manual approaches to presentations of somatic pain report wide variance in approaches for a specific complaint[34] similar to those explored in generic terms by Young. The significant difference is these beneficial outcomes are achieved by non-chiropractors practising multiple variants in the absence of religiosity.

This observation tends to suggest that while 1 interpretation could be that religiosity is integral to certain elements of clinical practice by chiropractors, it may indeed be a spurious outlier within the context of attempts by individuals within their times to convey a present understanding and a future direction for ways of applying clinical elements of an emerging paradigm of health care practice.

CONCLUSION

The matters raised in Young’s paper[1] are important to consider if only because there are so few chiropractors attempting to offer justifiable philosophical positions as opposed to repetition of historical claims and perspectives.

Religiosity is a well-established theme among scientists and clinicians exploring the subtleties of clinical practice. Typically it can be seen as an emerging dimension confounded by Young's claims one particular form of health care intervention, chiropractic, appears flawed due to the early appearance of what has been today interpreted as statements of religiosity.

This interpretation is summarised by Young as being an outcome adopted by the founders and early pioneers of chiropractic who did not benefit from the current understanding of science and research and therefore substituted inductive and deductive reasoning to arrive at conclusions about health and disease in the human body.[1]

From this flows Young's conclusion that those elements of contemporary chiropractic practice that utilise radiography to inform the patient-care continuum employ historically derived paradigms that display characteristics in common with religion. In reaching this conclusion Young omits reference to the formalisation of the use of radiography for this purpose by the dominant body representative of the discipline in the United States for political purposes underpinned by commercial intent but presented as essential elements of clinical diagnosis.

Prior to accepting Young's proposition that the concept of subluxation as commonly applied within chiropractic represents an historical view expressed in religious terms from which flows the argument the concept is one of belief as opposed to one of a discernible clinical nature, we need to interpret the early Clinical Documentation Guidelines of the American Chiropractic Association (ACA), which state in part the need for a chiropractic clinician to determine whether:

- There are precise subluxations documented by physical exam or x-ray
- The exam substantiates the condition and the subluxation
- The complaint is consistent with the subluxation level(s)
- There is a primary diagnosis of subluxation

While the above are undated they are incorporated in the current website of the ACA[35] which simply states under the heading *Documentation of the subluxation* that "You can use x-ray, CAT scan, and MRI to identify misalignments."

It would appear anomalous if not contradictory for a significant professional association to call for clinicians to document evidence of what Young[1] purports as being a religious artefact, were Young to be found correct.

The fact that a combined body with cultural authority implemented concepts to appease Federal government by combining multiple concepts from a broad number of expressed clinical constructs filtered through the lenses of particular individuals tends to render null and void any argument that the use of radiography and related imaging modalities today by practitioners of chiropractic is based on religiosity. Rather, it would appear more likely to have been a politically motivated pragmatic clinical decision applicable to an entire clinical group.

A counter argument may be mounted to the effect that knowledge based on deep cognitive appreciation of variants in clinical practice, expressed in terms that projected a therapeutic intent into a future application, has been nothing but beneficial for the development and growth of the chiropractic approach to manual medicine.

Another counter argument could be mounted relating to the defining parameters a clinician would reasonably be expected to identify and quantify to allow the categorisation of a diagnostic image as being representative of a clinical entity thought worthy of therapeutic intervention.

Perhaps Young appreciated the flaws in his proposition[1] that chiropractic technique was based on religion which led to his publication of remarkably similar argument in the absence of religious terms elsewhere.[36] Many of the philosophical arguments raised in this paper in respect to the research material as originally published[1] are equally applicable to their subsequent publication in another journal[36] and need not be repeated.

It is one thing to premise a thesis by publication and another thing totally to make salami.[37] In the absence of philosophical argument and responsible contextual interpretation of historic positions any attempt to allege religiosity of a discipline remains arguable no matter the chosen structure.

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