

Measuring philosophy: a philosophy index

Lesley Biggs, PhD*

Dale Mierau, DC, MSc**

David Hay, PhD†

Chiropractic philosophy which has been debated since the founding of chiropractic in 1895 has taken on new vigour over the past ten years. Despite a growing body of literature examining chiropractic philosophy, the chiropractic profession continues to be divided over this issue. To date, there has been little research examining the meaning of chiropractic philosophy to rank-and-file practitioners.

The purpose of this paper is to present a philosophy index, based on thirteen items, which measures Canadian chiropractors' attitudes toward chiropractic philosophy. The internal consistency alpha reliability coefficient was .7700. Trends in practice philosophy were compared between males and females, among eight geopolitical regions, between those who attended the Canadian Memorial Chiropractic College and those who attended other colleges, between those who graduated before 1983 and those who graduated after 1983, and income. The data indicate that distinct, identifiable groups (empiricists, rationalists and moderates) exist within the profession, and that the profession is divided with respect to chiropractic epistemology, the role of science, chiropractic's status as an alternative form of healing and the etiology of disease. In addition, the data reveal statistically significant differences in attitudes toward philosophy across the country and college attended. The authors argue that more research needs to be done in order to understand more fully the meaning

La philosophie de la chiropratique, depuis l'arrivée de cette discipline en 1895, est un sujet de controverse encore plus dynamique depuis les dix dernières années. Malgré une abondante et toujours croissante bibliographie sur la philosophie de la chiropratique, les professionnels du domaine restent divisés sur ce sujet. Jusqu'à présent, il n'y a eu que très peu d'études sur la signification de cette philosophie pour les praticiens sur le terrain.

Le présent article vise à introduire un indice, basé sur treize critères, qui permet de mesurer l'attitude des chiropraticiens au Canada vis-à-vis la philosophie de la chiropratique. Le coefficient alpha de fiabilité interne était de 0,7700. Les points de comparaison des tendances concernant la philosophie de la pratique se situaient : entre hommes et femmes, entre huit régions géopolitiques, entre ceux qui ont étudié au Canadian Memorial Chiropractic College et ceux qui ont étudié ailleurs, entre ceux qui ont fini leurs études avant 1983 et ceux qui les ont finies après, et entre les revenus. Les données indiquent qu'il existe dans le corps professionnel des groupes distincts identifiables (les empiristes, les rationalistes et les modérés), et que la profession est divisée en ce qui concerne l'épistémologie de la chiropratique, le rôle de la science, le statut de la chiropratique comme forme de médecine douce et l'étiologie des maladies. De plus, les données révèlent des différences statistiques importantes à travers le pays

* Department of Women's and Gender Studies, University of Saskatchewan, Saskatoon, Saskatchewan S7N 5A5.

** 9 – 119 4th Avenue South, Saskatoon, Saskatchewan S7K 5X2.

† Department of Sociology, University of Saskatchewan, Saskatoon, Saskatchewan S7N 5A5.

All correspondence should be directed to Lesley Biggs, PhD, Department of Women's and Gender Studies, University of Saskatchewan, Saskatoon, Saskatchewan S7N 5A5.

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of chiropractic, its impact on practice and professional identity.
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Introduction

It is almost a truism to say that since its early beginnings, chiropractic philosophy has been controversial, a focal point of conflict and division within the profession, and the subject of ridicule by opponents of chiropractic. Much ink has been spilled over the merits and demerits of chiropractic philosophy. In recent years, many chiropractic leaders have attempted to articulate a *new* philosophy for chiropractic.^{1–19} The majority of these articles use several common textual strategies in order to provide conceptual clarity. Drawing on the philosophy of science, these authors begin by defining key terms including, inter alia, ‘philosophy’, ‘relativism’, ‘dogmatism’, ‘science’, ‘fundamentalism’, ‘holism’, ‘rationalism’, ‘cartesian reductionism’, ‘vitalism’. Each writer then offers her or his approach by articulating the main elements of a new philosophy for chiropractic which eschews many of chiropractic’s early metaphysical components, while incorporating some notion of ‘wellness’ or ‘holism’, and relying on the methodology of either the experimental or hermeneutical sciences.

The urgency of seeking resolution on the debate over chiropractic philosophy is most clearly articulated in the proceedings of the World Federation of Chiropractic’s (WFC) biannual meeting held in November 2000.²⁰ Co-sponsored by the Association of Chiropractic Colleges and the United States National Board of Chiropractic Examiners and bringing together academic leaders from around the world, the focus of the conference was “to seek consensus on the core beliefs and basic tenets of the philosophy of chiropractic and how to teach them to students” (p.1). The conference was organized in response to the proliferation of chiropractic schools across the globe

et selon le lieu d’études quant aux attitudes vis-à-vis de la philosophie. Selon les auteurs, il faudrait étudier plus à fond ce sujet pour bien comprendre la notion de chiropratique, ainsi que son influence sur la pratique et sur l’identité professionnelle.
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MOTS CLÉS : chiropratique, philosophie.

and to the “widespread divergence between what was being taught on philosophy both in established and newer schools”(p.1).²⁰ The conference participants agreed that if chiropractic was to retain its unique identity, then the chiropractic profession needed “a common conceptual framework based on a shared philosophy” (p.8). To this end, conference delegates generated a series of consensus statements, and while “there was insufficient time to achieve consensus statements on teaching methods”(p.8), participants had a much greater understanding of “the fundamentally important role of philosophy in chiropractic education and practice” (p.8).

The proceedings of the WFC meeting, as well as the majority of the articles cited above, are thoughtful treatises (although some fall into hyperbole) on the nature of chiropractic philosophy. They offer a logical approach to the issues in the hope that they will convince readers of the merits of developing a new chiropractic philosophy – one which is both evidenced-based and humanistic. Yet even a cursory examination of this literature reveals (perhaps not surprisingly) that there is no agreement on the definitions of terms. Thus, while conceptual clarification is a laudable goal, and indeed, there is a place for this kind of collective self-reflection, the fact remains that logical, persuasive argument has not shifted attitudes, and the chiropractic profession continues to be divided over philosophy.

Perhaps what is most striking about the debate over philosophy is that there has been virtually no research on determining the meaning of philosophy to rank-and-file practitioners. There is little evidence indicating the nature and the extent of the divisions, and the sources of disagreement. The purpose of this paper is a modest one. In it, we present a *philosophy index* which we developed to

measure Canadian chiropractors' attitudes toward this issue. The construction of this index was part of a much larger study previously reported in which we examined Canadian chiropractors' attitudes toward philosophy and their relationship to the implementation of clinical practice guidelines, standards of care, and the organizations responsible for their execution.^{21,22} In this study, we present all thirteen elements of the index* and their distribution among Canadian chiropractors. In addition, we present the philosophy index and its relationship to some key socio-demographic and practice variables including gender, college attended, date of graduation, province of practice and income. These data provide a baseline profile of Canadian chiropractors' views on philosophy.

Methods

Data were collected in 1994 by a questionnaire that was mailed out to a stratified (by gender and province) random sample of 600 chiropractors registered to practise in Canada. The method of data collection was described in detail in papers published previously.²³ The questionnaire consisted of 57 statements. Recipients of the questionnaire were asked to respond to statements on a 5 point Likert scale. The responses were later recoded from the 5 point scale to a 3 point scale of agree (1), neutral (3) or disagree (5). Thirteen of the statements in the questionnaire addressed issues about chiropractic philosophy and scope of practice (see Table 1).

The responses to these 13 statements were totalled to provide a discrete score between a low of 13 and a high of 65 for each respondent. Three categories were constructed by dividing this range of possible scores into three groups: rationalists, empiricists and moderates. These categories, which are widely accepted in the philosophy of science,²⁴ were chosen to describe the ways in which different groups of chiropractors understand the sources of their knowledge. Rationalists argue that reason is the source of all knowledge while empiricists believe that sensory experience is the source of knowledge. Moderates rely on a combination of empiricism and rationalism.

The group that scored between 13 and 30 on the index was called the 'rationalists'. This group was more likely to

* There were 57 items in the questionnaire which examined chiropractic methods and guidelines for standards of care, and chiropractors' perception of chiropractic organizations.

Table 1
A Philosophy Index

1	I subscribe to the philosophy of DD Palmer. (Attitude 53)
2	I subscribe to the philosophy of BJ Palmer. (Attitude 54)
3	Chiropractors are an integral part of the health care team. (Attitude 45)
4	Chiropractic is an alternate form of health care. (Attitude 44)
5	Chiropractic methods do not need to be validated. (Attitude 2)
6	Controlled clinical trials are the best way to validate chiropractic methods. (Attitude 17)
7	There is little or no evidence for the treatment of non-musculoskeletal conditions with chiropractic adjustments. (Attitude 51)
8	Chiropractic science has proven that chiropractic treatment is valid for non-musculoskeletal conditions. (Attitude 50)
9	The scope of chiropractic practice should be limited to musculoskeletal conditions. (Attitude 46)
10	Most diseases are caused by spinal malalignment. (Attitude 48)
11	The subluxation is the cause of many diseases. (Attitude 52)
12	A chiropractic subluxation is detectable by x-ray. (Attitude 47)
13	Many diseases are caused by bacteria or viruses. (Attitude 49)

reject traditional chiropractic philosophy as espoused by DD. and/or BJ. Palmer, emphasizes the scientific validation of chiropractic concepts and methods, and was associated with a narrow scope of practice restricted to musculoskeletal conditions. The group that scored between 48 and 65 was called the 'empiricists'. This group was more likely to accept traditional chiropractic philosophy as espoused by DD. and/or BJ. Palmer, relied on clinical experience as the main method for validating chiropractic, and was associated with a broad scope of practice which includes the treatment of non-muscu-

loskeletal conditions. The group that scored between 31 and 47 was called the ‘moderates’ and fell somewhere in between the rationalists and the empiricists. The internal consistency alpha reliability coefficient was .77.

Trends in practice philosophy were compared between males and females, among eight geopolitical regions, between those who attended the Canadian Memorial Chiropractic College and those who attended other colleges, between those who graduated before 1983 and those who graduated after 1983, province/area of practice and income.

Results

Three thousand nine hundred and forty-one (3941) chiropractors were registered in Canada at the time of the survey in 1994; 650 (16.5%) were female and 3291(83.5%) were male. Three mailings to a stratified random sample of 600 chiropractors yielded a return of 401 (68.3%) completed responses. Three hundred and ninety three ($n = 393$ or 65.5%) data sets were complete enough for analysis. (Eight of the returned questionnaires were rejected because they did not meet the criteria established for a complete file.)

The statistical data are presented in two parts. In the first part, the frequencies and percentages for each of the statements comprising the *philosophy index* are presented. (These data have been presented partially elsewhere,²¹ and in a different form, but they provide the reader with a snapshot picture of the index itself.) The index seeks information in 5 areas: the acceptance of traditional philosophy as espoused by DD. Palmer and BJ. Palmer; the role of chiropractic in the health care system; methods of evaluation and scope of practice; and the etiology of diseases. In the second part, the data for the socio-demographic, educational and income variables are presented. All of the data are presented as bar graphs for quick visual reference.

1: The Philosophy Index

Figure 1 presents the distribution of chiropractors according to individual scores on the philosophy index. The results show that 14.9% of Canadian chiropractors fall into the category of the ‘rationalists’, 28.4% would be considered ‘empiricists’, while the majority of chiropractors (56.8%) fall somewhere between these two poles. However, the distribution data reveal that, on the whole, the

moderates lean toward the empiricist end of the index. The data also show that 23.5% of Canadian chiropractors accepted the traditional chiropractic philosophy as espoused by DD. Palmer, 36.7% rejected it, while the remaining 39.7% were neutral (see Figure 2). There was more support for traditional philosophy as espoused by BJ. Palmer: 37.1% indicated that they subscribed to his philosophy; 26.6% rejected it, and the remaining 36.3% were neutral (see Figure 3).

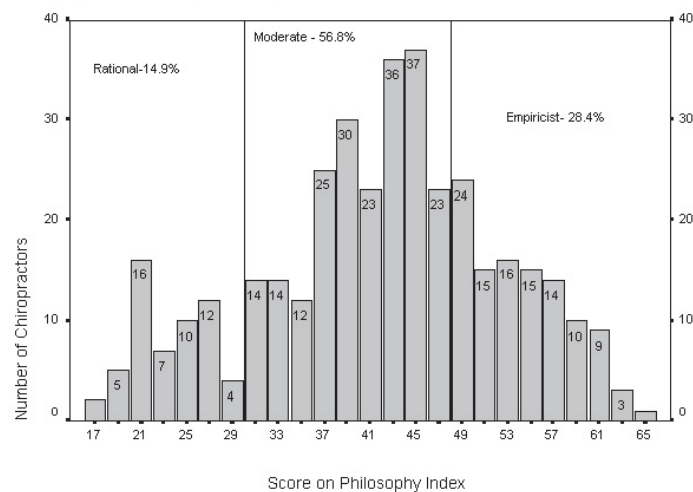


Figure 1. The distribution of chiropractors by score on the philosophy index

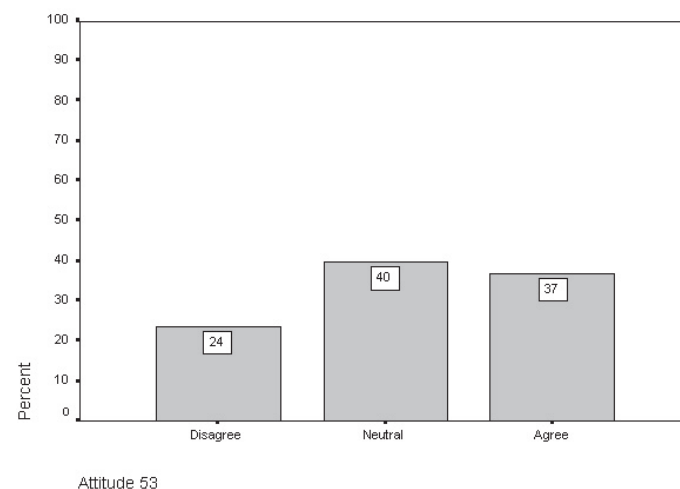


Figure 2. I subscribe to the philosophy of DD Palmer

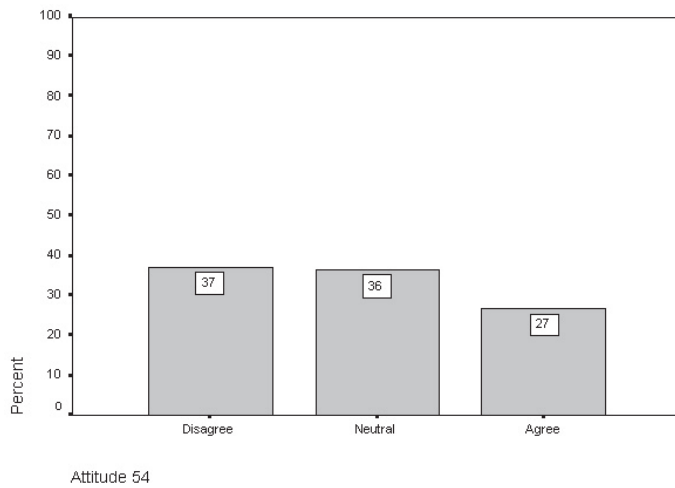


Figure 3. I subscribe to the philosophy of BJ Palmer

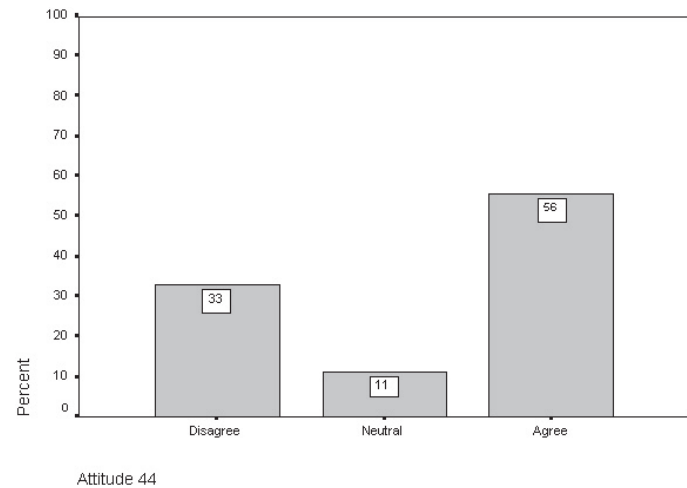


Figure 5. Chiropractic is an alternate form of health care

The Role of Chiropractors in the Health Care System

In terms of their role in the health care system, the vast majority of chiropractors (94.0%) see themselves as an integral part of the health care system (see Figure 4). At the same time, 55.6% of chiropractors believe that chiropractic is an alternative form of health care whereas 33% do not accept this view and the remaining 11.4% were neutral (see Figure 5)

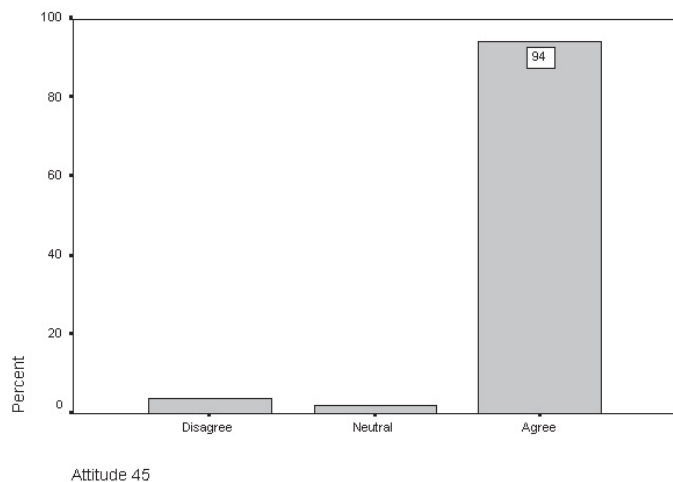


Figure 4. Chiropractors are an integral part of the health care team

The Role of Science:

Validation of Methods and Scope of Practice

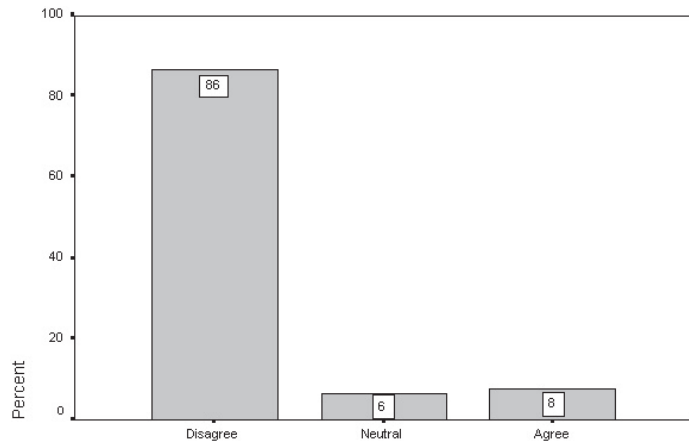
The majority of chiropractors (86.3%) disagreed with the statement that “chiropractic methods do not need to be validated”; that is, the majority of chiropractors believe that some form of validation is appropriate; 7.8% did not believe that chiropractic methods need to be validated; while the remaining 6.0% were neutral (see Figure 6). However, they clearly disagree over which methods should be used. The majority of chiropractors (74.3%) do not agree that controlled clinical trials are the best way to validate chiropractic methods; 8.2% believe that controlled clinical trials are the best way while the remaining 17.5% are neutral (see Figure 7). In contrast, the majority of chiropractors (51.3%) believe that “personal clinical experience is the best way to validate chiropractic methods” and 43.6% agreed that “any method that seems to help the patient is valid”. (Note that these two latter statements were part of the questionnaire but were **not** included as part of the index.²¹)

Not only is there disagreement over the type of methods appropriate for the validation of chiropractic, but Canadian chiropractors were divided over the validation of treatment for non-musculoskeletal conditions. A minority of chiropractors (27.3%) agreed that “there is little or no evidence for the treatment of non-musculoskeletal conditions with chiropractic adjustments” while 59.6% rejected

this statement and the remaining 13.1% were neutral (see Figure 8). In addition, chiropractors were divided over the role of chiropractic science in demonstrating that chiropractic treatment is valid for non-musculoskeletal conditions: 47.1% agreed with the statement that “chiropractic science has proven that chiropractic treatment is valid for non-musculoskeletal conditions”; 32.9% disagreed with this statement and 20% were neutral (see Figure 9).

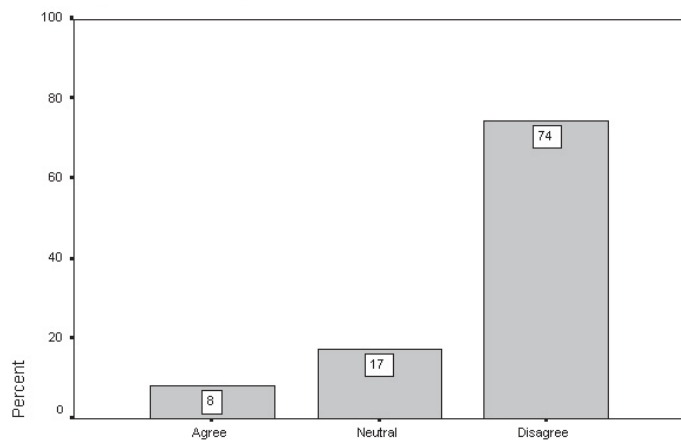
Based on these data, it comes as no surprise to learn that the majority of chiropractors (74.6%) do not believe that chiropractic practice should be limited to musculoskeletal

problems; while 14.1% agree that it should be, and 11.3% were neutral (see Figure 10). Moreover, of the chiropractors (14.1%) who agreed that the chiropractic scope of practice should be limited to musculoskeletal conditions, 66% were rationalists; 30% were moderates and 4% were empiricists. Of those who disagreed with this statement, 4.6% were rationalists, 58.9% were moderates and 36.5% were empiricists.



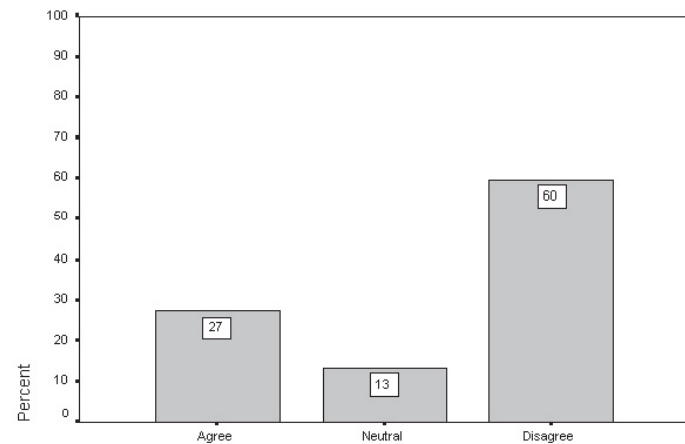
Attitude 2

Figure 6. Chiropractic methods do not need to be validated



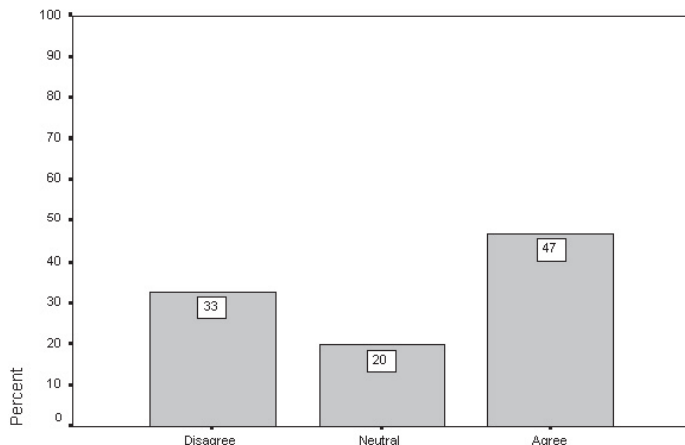
Attitude 17

Figure 7. Controlled trials are the best way to validate chiropractic methods



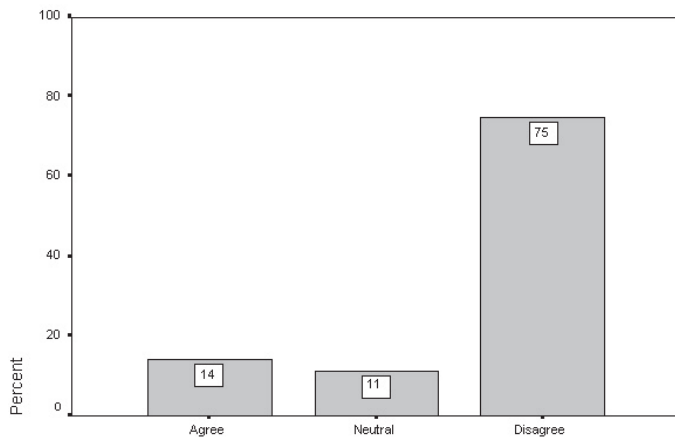
Attitude 51

Figure 8. There is little evidence for the treatment of non-musculoskeletal conditions with chiropractic



Attitude 50

Figure 9. Chiropractic science has proven that chiropractic treatment is valid for non-musculoskeletal conditions

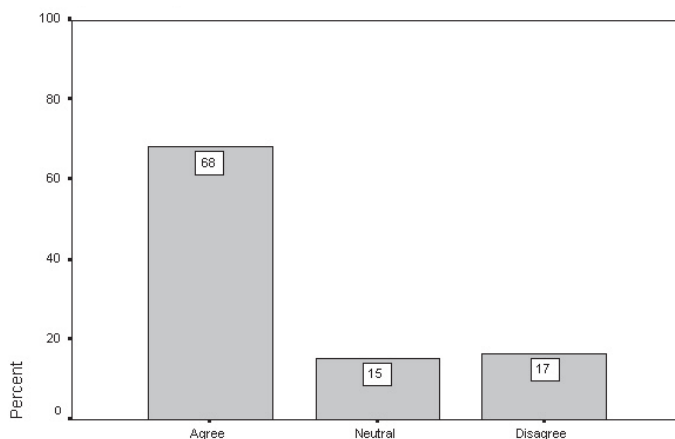


Attitude 46

Figure 10. The scope of chiropractic practice should be limited to musculoskeletal conditions

The Etiology of Disease

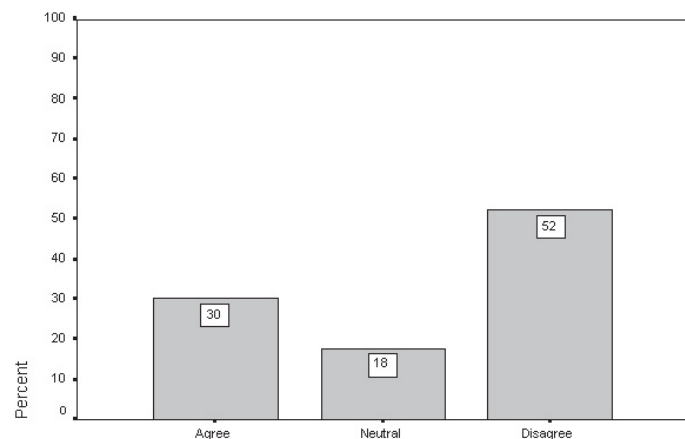
The majority of chiropractors (68.1%) believed that “most diseases are caused by spinal malalignment”; where 16.6% disagree and 15.3% were neutral (see Figure 11). At the same time, the majority of chiropractors (52.2%) disagreed that “the subluxation is the cause of many diseases”; while 30.1% agreed with this statement and 17.7% were neutral (see Figure 12). However, 54.4% agreed that “a chiropractic subluxation is detectable by x-ray”; 28.4% disagreed with this statement and 16.2% were neutral (see



Attitude 48

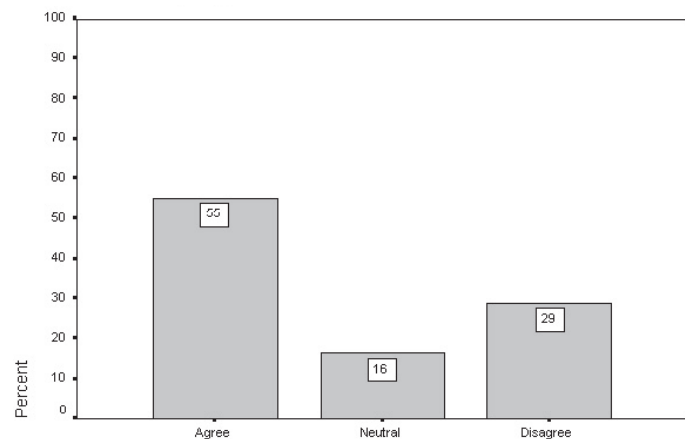
Figure 11. Most diseases are caused by spinal malalignment

Figure 13). Finally, despite the fact that the majority of chiropractors believe that spinal malalignment is the source of many diseases, the majority of chiropractors (72.6%) agreed that “many diseases are caused by bacteria or viruses” while 15.6% disagreed with this statement and 11.8% were neutral (see Figure 14).



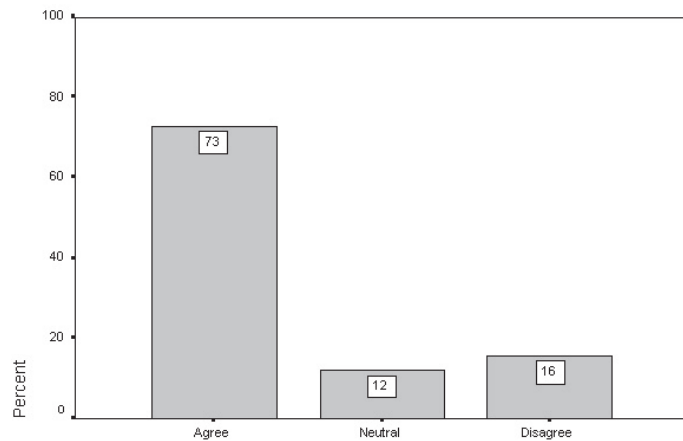
Attitude 52

Figure 12. The subluxation is the cause of many diseases



Attitude 47

Figure 13. A chiropractic subluxation is detectable by x-ray



Attitude 49

Figure 14. Many diseases are caused by bacteria or viruses

Part 2: The Philosophy Index and Sociodemographic, Educational and Practice Variables

Province of Practice

As reported elsewhere the most significant differences on the philosophy index are across geopolitical regions (see Figure 15). Saskatchewan had the lowest mean philosophy index score (32.0) whereas Quebec had the highest mean philosophy score (48.3). The philosophy index score for the remaining provinces and the Maritimes was relatively even and the mean score for these areas was 41.2. As can be expected, the number of rationalists, moderates and empiricists varies within geopolitical areas, as well as across Canada (see Figure 16). Saskatchewan had the highest percentage of rationally-oriented chiropractors 15/29 (52%) whereas Quebec 3/55 (5.4%) and Alberta 3/52 (5.7%) had the lowest. In comparison, Quebec had the highest percentage of empirically-oriented chiropractors 29/55 (52.7%) and Saskatchewan had the lowest 4/29 (13.8%). British Columbia, Manitoba, Ontario and the Maritimes had the largest representation of moderates (ranging from 61 to 64%). A statistically significant difference was found between mean scores on the philosophy index for province of practice ($F = 3.34$ $p < .001$).

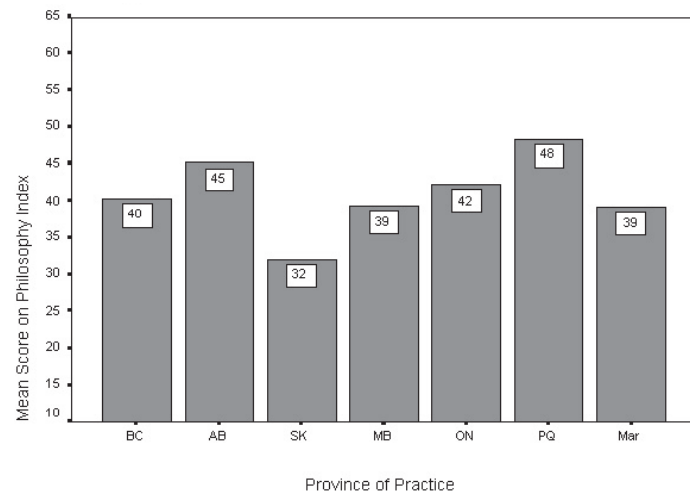


Figure 15. Mean Score on Philosophy Index by Province of Practice

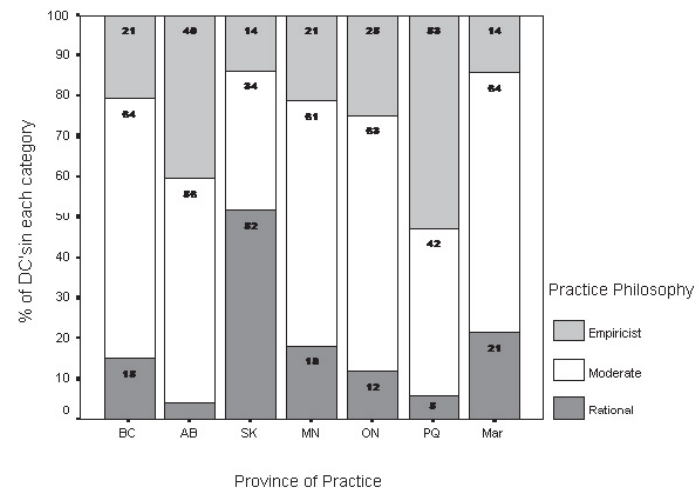


Figure 16. Percentage of chiropractors in each category by province

Province by Gender

Overall, the data indicate that there were only minor differences between women and men on the philosophy index; nor were there any consistent patterns of men scoring higher than women or vice versa (see Figure 17). The overall mean score for women was 41 compared to 42.1 for men. A statistically significant difference was not found between the mean scores on the philosophy index for gender ($F = 0.364$ NS).

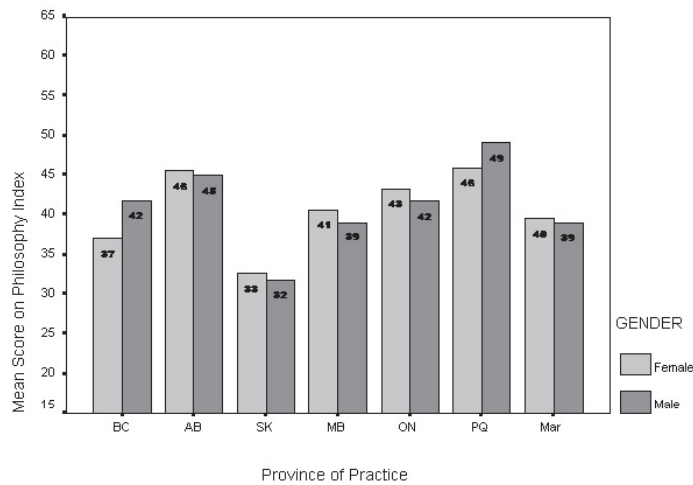


Figure 17. Mean Score on Philosophy Index by Province and Gender

Province by College

The data indicate that overall CMCC graduates across all geopolitical regions scored consistently lower on the philosophy index than graduates from other colleges (see Figure 18). The mean score for CMCC graduates was 39.6 while the score for graduates from other colleges was 46.2. Graduates from CMCC practising in Saskatchewan had the lowest mean score (30.8) compared to CMCC graduates practising in Quebec who had the highest mean score (45.8). The data show that CMCC graduates for the

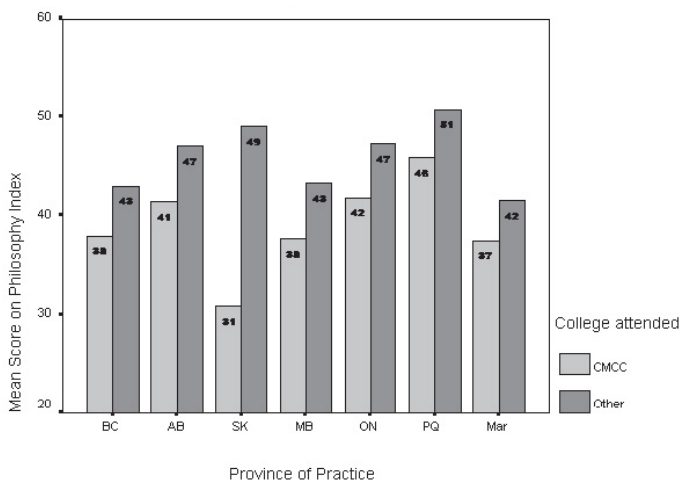


Figure 18. Mean Score on the Philosophy Index by Province and College

remaining geopolitical regions (British Columbia, Alberta, Manitoba, Ontario and the Maritimes) had more consistent scores with a mean of 40.9. While graduates from other colleges practising in Quebec had the highest mean score on the index (50.7), graduates from other colleges practising in Saskatchewan ran a close second with a mean score of 49.0. Graduates from other colleges practising in the remaining provinces (British Columbia, Alberta, Manitoba, Ontario and the Maritimes) also scored relatively high; the mean score for these regions was 44.4. A statistically significant difference between mean scores on the philosophy index was found for college attended ($F = 14.08 p < .001$).

Province by Time of Graduation

The data for mean score on philosophy index by province and by time of graduation indicate that there were minimal differences on the philosophy index for chiropractors who graduated before 1983 or after 1983 for geopolitical regions east of Saskatchewan (see Figure 19). However, chiropractors practising in B.C. and Alberta who graduated before 1983 had higher mean scores on the philosophy index than chiropractors who graduated after 1983. (The mean scores for chiropractors graduating before 1983 in British Columbia and Alberta were 42.5 and 47.1 respectively; the scores for practitioners practising after 1983 were 36.2 and 42.7 respectively.) In contrast, com-

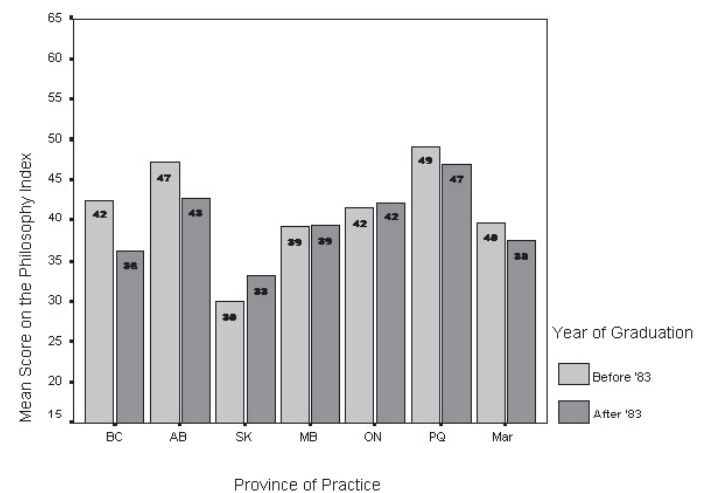


Figure 19. Mean Score on the Philosophy Index by Province and Time of Graduation

pared to the rest of the country, chiropractors practising in Saskatchewan had the lowest mean scores both for those who graduated before and after 1983. The mean score for chiropractors graduating before 1983 in Saskatchewan was 30.0 while the scores for practitioners graduating after 1983 was 33.2. Overall, a statistically significant difference was not found between mean scores on the philosophy index for year of graduation ($F = 0.10$ NS).

Income

The data show that there is considerable variation in income within the categories of rationalists, moderates and empiricists, and across scores on the philosophy index. While no consistent pattern was evident, perhaps the most interesting data is that chiropractors who have the highest scores on the philosophy index (63 and 64) also have the highest incomes. Overall, a statistically significant difference was not found between mean scores on the philosophy index for income ($F = 1.306$ NS).

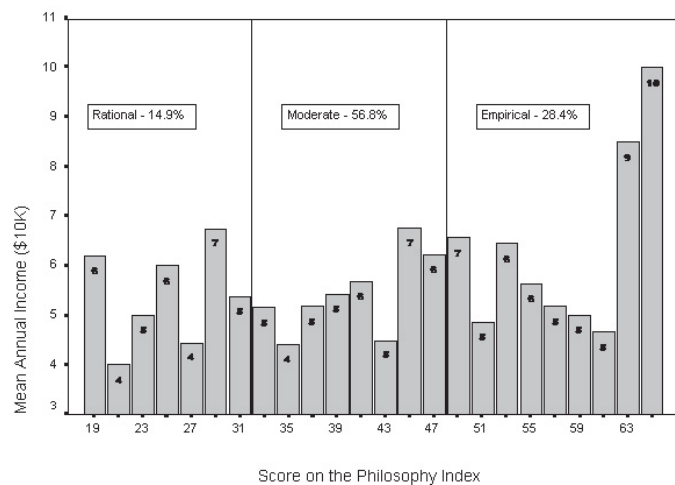


Figure 20. Mean annual income by score on the Philosophy Index

Discussion

Overall, the data showed that the chiropractic profession in 1994 was divided over philosophy. The data demonstrated that distinctive, identifiable groups (rationalists, moderates and empiricists) existed within the Canadian chiropractic profession. They disagree on key aspects of

chiropractic epistemology. The data suggested that traditional philosophy continues to have currency for a significant minority (fully one-quarter to one-third) of Canadian chiropractors as evidenced by their continued allegiance to the ideas of either DD. Palmer or BJ. Palmer or both. Moreover, just over half (54%) of the profession believed that chiropractic represents an alternative form of healing although almost all agreed that chiropractors play an integral role in the health care system.

Canadian chiropractors are also divided over the role of science. The majority of chiropractors do not support randomized controlled trials to validate chiropractic treatment; rather they tend to rely on clinical experience. This privileging of clinical experience over experimental methods is not unique. This division is frequently found between rank and file clinicians and researchers/educators in other health care practitioners (sometimes referred to as the town and gown split).²⁵

Finally, Canadian chiropractors appear to hold contradictory attitudes toward the etiology of disease. The majority of chiropractors simultaneously believed that many diseases are caused by spinal malalignment, and that most diseases are caused by bacteria or viruses. These views would seem to represent two different approaches to disease and illness. However, the majority of Canadian chiropractors did not believe that the subluxation is the cause of many diseases, but still believed in the concept of the subluxation as evidenced by their continuing belief in its detection by x-ray. This latter finding suggests a significant majority of the chiropractic profession is moving away from the concept of the subluxation as it was understood within traditional philosophy but are holding on to the idea that 'spinal malignment is a major source of disease', a position which still distinguishes between chiropractic and other approaches (but particularly biomedical) to health and illness. The confusion around the concept of the subluxation suggests further research should be conducted into chiropractors' understanding of its meaning, with the view to developing both greater conceptual and operational clarity.

While these trends signal overall differences in chiropractic philosophy, closer examination of the data reveal considerable variation across the country and by college attended. The regional variation on the philosophy index, where Saskatchewan had the lowest philosophy index score and Quebec had the highest suggests that the politi-

cal culture of each province has a significant effect on the philosophical beliefs of chiropractors. Similarly, the values imparted by the college attended also effected the philosophy index. Chiropractors who were trained at CMCC had lower scores on the philosophy index than chiropractors trained elsewhere. Time of graduation (before or after 1983) and income indicate variation within the philosophical groups and across the philosophy index, yielding no consistent patterns between these variables and score on the philosophy index.

Conclusion

The philosophy index provides a profile of Canadian chiropractors' attitudes toward chiropractic philosophy at a particular historical moment, and could provide a baseline for measuring changes in chiropractors' attitudes over time. However, it is not possible to determine from the data the elements of the political culture (e.g. regulatory environment, relations with biomedical practitioners, payment plans, etc.) or college of training effects chiropractors' orientation to practice philosophy. The philosophy index is a mere touchstone for a myriad of complex issues which require identification and operationalization. An understanding of these issues, and their relationships to the political culture and college of training suggests that a substantially different methodology (e.g. narrative analysis) rather than a survey is required to provide further insight into the results found in this study.

Attempts to dissociate chiropractic from its metaphysical past rest on the assumption that these elements of chiropractic philosophy are no longer relevant. But, the results of this survey show that traditional chiropractic philosophy continues to have relevancy for contemporary chiropractors. Traditional chiropractic philosophy continues to form the belief system of a significant group of chiropractors. Moreover, these ideas do not exist in a vacuum but are sustained by the social and political environment in which these chiropractors work and by their educational training, as is true for chiropractors who espouse rationalist and moderate philosophies.

In a footnote to his paper, Keith Charlton observed that chiropractors have "tended to use philosophy as a weapon to dominate each other or to hold some mythical high ground rather than as a tool to promote understanding and to increase explanatory power" (p. 178).⁴ In part, this state of affairs has evolved because the political, economic, and

symbolic significance of the different philosophies to rank and file chiropractors has been virtually unexamined. We suggest, based on our findings, a qualitative approach to understanding chiropractic philosophy is now required. This strategy would allow researchers to explore in more depth chiropractors' belief systems, and the ways in which they resonate with chiropractors' life-worlds, their daily practice habits and their professional identities.

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References

- 1 Bonello R. An institutional perspective on chiropractic philosophy. *Chiro J Austral* 1991; 21(4):142–143.
- 2 Cerutti M. Chiropractic Philosophy: Is it relevant today? *Chiro J Austral* 1991; 21(4):132–135.
- 3 Chance MA, RE Peters. A quest for better questions. *Chiro J Austral* 1991; 21(4):179–185.
- 4 Charlton KH. A pox on all your houses. *Chiro J Austral* 1991; 21(4):176–178.
- 5 Coulter ID. Sociology and philosophy of chiropractic. *Chiro J Austral* 1991; 21(4):149–152.
- 6 Coulter ID. Chiropractic philosophy has no future. *Chiro J Austral* 1991; 21(4):129–131.
- 7 Coulter ID. An institutional philosophy of chiropractic. *Chiro J Austral* 1991; 21(4):136–141.
- 8 Coulter ID. *Chiropractic: A Philosophy for Alternative Care*. Oxford. 1999.
- 9 Jamison JR. Chiropractic philosophy versus a philosophy of chiropractic: The sociological implications of different perspectives. *Chiro J Austral* 1991; 21(4):153–160.
- 10 Jamison JR. Looking to the future: From chiropractic philosophy to the philosophy of chiropractic. *Chiro J Austral* 1991; 21(4):168–175.
- 11 Keating JC. A survey of philosophical barriers to research in chiropractic. *J Can Chiropr Assoc* 1989; 33(4):184–186.
- 12 Kleynhans AM. Developing philosophy in chiropractic. *Chiro J Austral* 1991; 21(4):161–167.
- 13 Kleynhans AM. An institutional perspective of philosophy in the chiropractic curriculum. *Chiro J Aust* 1991; 21(4):144–148.
- 14 Kleynhans AM. Paradigms for chiropractic research. *Chiro J Austral* 1991; 21(3):102–107.
- 15 Seaman D. Philosophy and science versus dogmatism in the practice of chiropractic. [Http://www.Chiro.org](http://www.Chiro.org). 1/19/00. Reprint from *J Chiropr Humanities*.

- 16 Winterstein JF. Philosophy of chiropractic: A contemporary perspective. Part 1. ACAJ 1994; (April): 28–36.
- 17 Winterstein JF. Philosophy of chiropractic: A contemporary perspective. Part 2. ACAJ 1994; (May): 64–71.
- 18 Winterstein JF. Is traditional ‘chiropractic philosophy’ valid today? *Philos Const Chiro Prof.* 1991; 1(1):37–40.
- 19 Gelardi TA. The science of identifying professions as applied to chiropractic. *J. Chiro Human* 1996; 6(1):11–17.
- 20 Koch D, Phillips R (eds.). *Philosophy of Chiropractic in Education: Proceedings of the World Federation of Chiropractic Conference in association with the Association of Chiropractic Colleges and the US National Board of Chiropractic Examiners.* World Federation of Chiropractic, 2000.
- 21 Biggs L, Hay D, Mierau D. Canadian chiropractors’ attitudes towards chiropractic philosophy and scope of practice: implications for the implementation of clinical practice guidelines. *J Can Chiropr Assoc* 1997; 41(3):145–154.
- 22 Biggs L, Hay D, Mierau D. Standards of care: what do they mean to chiropractors, and which organizations should develop them. *J Can Chiropr Assoc* 1999; 43(4):249–257.
- 23 Hay D. A mail survey of health care professionals and analysis of the response. *J Can Chiropr Assoc* 1996; 40(3):162–168. See also references 14 and 15.
- 24 Moser PK, Dwayne H, Mulder JD, Trout V. *The Theory of Knowledge: A Thematic Introduction.* 1998; New York and Oxford: Oxford University Press.
- 25 Freidson E. The changing nature of professional control. *Am Rev Sociol* 1984; 10:1–20.

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