

Chapter 1

THE COMPLEXITIES OF MEDICAL PROFESSIONALISM

A Preliminary Investigation

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INTRODUCTION

Efforts within organized medicine over the last twenty years to re-establish an ethic of professionalism have obscured the fact that currently there are several competing clusters or types of medical professionalism, each of which represents a unique approach to medical work. Stated differently, the “professionalism” that has emerged within the academic medical journals, conferences, debates, and discussions over the past twenty years is a highly selective and privileged narrative, developed and delivered by one, possibly two, particular strata within the organizational structure of medicine. We call this strata the ruling class of medicine, and we refer to its medical professionalism as *nostalgic*. The other clusters of medical professionalism that we empirically “discovered” include *entrepreneurial*, *empirical*, *lifestyle*, *unreflective*, *academic*, and *activist* professionalism.

The development of this seven-cluster system of medical professionalism was by no means an accident. Instead, it was the direct result of our involvement in the new science of complexity (e.g., Axelrod, 1997; Bak, 1999; Capra, 1996; Cilliers, 1998; Holland, 1998). Specifically, we are in the process of developing our own theoretical and methodological framework, which we applied to the current study.

The purpose of this chapter is to introduce readers to a more “complex” medical professionalism. To do so, we begin with a quick overview of the theory and method we developed, along with the historical archive we used to conduct our empirical analyses. Next, we review the five important ways the theory and method helped us to recognize, discover, analyze and assemble medical professionalism as a complex social system, including a thick description of the seven clusters we discovered. We conclude by putting the complex social system of medical professionalism together, reflecting on the insights our results have for the future teaching and evaluation of professionalism.

IS PROFESSIONALISM REALLY THAT COMPLEX?

Over the last twenty years, an entirely new way of doing science has emerged, which many leading scholars are heralding as a critical scientific paradigm of the 21st century (e.g., Capra, 1996, 2002; Kauffman, 2000). The name of this new paradigm is *complexity science* (e.g., Bar-Yam, 1997; Byrne, 1998; Waldrop, 1992). Complexity science has become part of the intellectual imagination through a series of mainstream academic works that have popularized this new science’s core topics, including complex adaptive systems (e.g., Holland, 1995), chaos theory (Gleick, 1987), fractal geometry (Mandelbrot, 1983), computer-based modeling (Casti, 1999; Holland 1998), self-organizing systems (Kauffman, 2000), artificial life (Ward, 1999), and complex networks (Barabási, 2002; Watts, 1999).

In medicine, research into complexity science’s core topics has led to a number of important advances. In epidemiology, for example, this research has provided a very sophisticated way of mapping and studying how diseases are transmitted globally and locally through the various social networks in which people live and work (e.g., Barabási, 2002); in biomedical research it has led to new computational techniques for modeling the complexities of biological systems (e.g., Kauffman, 2000; Ward, 1999); in family medicine it has helped to better understand the dynamics of group medical practice (e.g., Aita, McIlvain, Susman, & Crabtree, 2003; Miller, Reuben, McDaniel, Crabtree, & Stange, 2001); in health care management it has led to a more sophisticated understanding of the complexities of professional organizations and their management (e.g., Anderson & McDaniel, 2000; McDaniel, Jordan, & Fleeman, 2003); and in qualitative health research it has led to the development of a whole new set of techniques (e.g., Agar, 2003; Anderson, Crabtree, Steele, & McDaniel, 2005; Castellani, Castellani & Spray, 2003; Castellani & Castellani, 2003).

Social Complexity Theory and Assemblage

The theory and method we used for this study are called, respectively, *social complexity theory* and *assemblage*. Their conjoint purpose is to help researchers recognize, discover, analyze and assemble various social phenomena as complex social systems. Social complexity theory does this by providing researchers a useful set of concepts that explain how complex social systems work. Assemblage does this by showing researchers how to discover and analyze a complex social system by building it from the ground up.

In terms of the current study, social complexity theory and assemblage helped us in five important ways: 1) to realize and discover medical professionalism as a complex system; 2) to develop a historical database for its study; 3) to determine the field of relations in which it has been situated for the last thirty years; 4) to assemble its internal organization into ten key aspects of medical work; and 5) to discover and develop our seven-cluster network of professionalism.

MAKING PROFESSIONALISM COMPLEX

The first way social complexity theory and assemblage helped was enabling us to realize and discover medical professionalism as a complex system. Our decision to pursue the current study was the result of a series of conversations we had about medical professionalism and complexity science. During these conversations we repeatedly asked ourselves a basic question: “Is the current discourse on professionalism truly singular and totalizing, or is it ‘privileged,’ meaning that there are other ways of practicing medical professionalism but they are hidden or overshadowed by the current dominant discourse?”

During our conversations two issues in particular suggested the latter: the increasing relevance that lifestyle and personal morality seem to play in the professional behavior of medical students and medical residents (e.g., Rippe, 1999; Wear & Castellani, 2002), and the extent to which the professionalism of practicing physicians seems to be infused with an “entrepreneurial” spirit (e.g. Hafferty, 2005). It appeared to us that both of these factors were not just diminishing the current discourse on professionalism, but seemed to be the basis for entirely new ways of practicing professionalism. Inspired by these initial insights, we began to build our database.

ARCHIVING THE DISCOURSE ON PROFESSIONALISM

The primary data for our study was the discourse on medical professionalism, which included the professional dominance, deprofessionalization and medical professionalism literature, as well as any published empirical studies on the professional behavior of medical students, medical residents and physicians. It also included letters to the editors, reviews and reports published and/or distributed by such leading organizations as the American Board of Internal Medicine (ABIM), the Association of American Medical Colleges (AAMC), the Accreditation Council on Graduate Medical Education (ACGME), the National Board of Medical Examiners (NBME), and the Liaison Committee on Medical Education's (LCME). Additional materials came from articles, commentaries, responses and related material dealing with medical professionalism that were found in various medical sociology journals and more popular U.S. publications such as *The New Yorker*, *The Wall Street Journal*, and *The New York Times*. Following Foucault's methodological guidelines for conducting an investigation into the history of ideas (1980), we treated all the discourses on medical professionalism as historical data for sociological study.

BEYOND THE RISE AND FALL OF MEDICINE

With our basic question and archive in hand, the theory and method helped us determine the set of external forces that have pushed organized medicine into a state of increasing professional complexity. In complexity science a distinction is commonly made between the external and internal state of a complex social system (e.g., Capra, 1996; Klir, 2001; Luhmann, 1995; Maturana & Varela, 1992). The external state can be thought of as the larger field of relations within which a complex social system is situated. This distinction is important because what researchers have consistently found is that the internal dynamics of a complex social system are primarily dependent upon the external forces impacting the system as a whole (Capra, 1996). In other words, changes taking place within a complex social system often are due to changes taking place in the external environment (e.g., Geyer & Zouwen, 2001; Luhmann, 1995). In the case of medical professionalism, we concluded that the seven clusters of medical professionalism we discovered emerged in direct response to the historical forces of decentralization in which organized medicine has been situated for the last thirty years. An abridged version of this story is as follows.

Every graduate student specializing in medical sociology is introduced at some level to the following storyline of 20th century American medicine, as told by sociology. This sociological story begins early in the 20th century with Carr-Saunders and Wilson's *The Professions* (1933/1964). This phase is known as the reform and initial rise of organized medicine, and is characterized by a period of profound and rapid development during which medicine not only grew in scientific and technical competence, but also in status and legitimacy (e.g., Starr, 1982). The second phase, which begins around the 1940s and continues onward through the 1960s, is known as medicine's phase of professional dominance. As analytically dissected in Eliot's Freidson's twin classics, *Professional Dominance* (1970) and *Profession of Medicine* (1970), organized medicine rose to the top of health care system and the professional class pyramid between the 1940s and the 1960s by controlling the production of medical knowledge, exercising authority over the division of medical labor, supervising and regulating the provision of health services, and maintaining control over the organization of medicine and the health care system. Additionally, medicine gained economic, political and cultural power by continuing to convince the economic and governmental elites, as well as the general population, that what it did as a profession was both valuable and necessary and required little to no outside regulation.

The 1960s, however, brought a whole new set of challenges that organized medicine, despite all of its efforts, was unable to effectively counter. These challenges included the skyrocketing costs of health care; the transformation of medicine from a cottage industry to a corporate "player" on Wall Street; the emergence of Medicare, Medicaid, and managed health care; the corporatization of medicine, which turned medical knowledge and treatment into a commodity; the patient-consumerism movement; the rise and competition of other health care professions (e.g., nursing, physician-assistants, etc); advances in medical and biomedical technology; cultural and academic challenges to the professional legitimacy of medicine; and the computer and information revolution, which increased the surveillance of physicians by various bureaucratic formations, including the federal government, evidence-based medicine, patient safety, physician report cards, health insurance panels, review boards, accrediting agencies, hospital administrations, and patient and intellectual watch-groups.

Within the medical sociology literature, this complex set of factors represent the third phase of medicine's history (e.g., Hafferty & McKinlay, 1993; Hafferty & Light, 1995), which medical sociologists describe as one of deprofessionalization (Haug, 1988), proletarianization (McKinlay & Arches, 1985) and corporatization (e.g., McKinlay & Stoeckle 1980). In this

essay, we group all of these challenges under the single heading, *forces of decentralization*.

Establishing the forces of decentralization as our larger field of relations, we arrived at the following (albeit tentative) conclusion. For the last thirty years organized medicine has been situated within a larger field of relations that has consistently and rather successfully challenged its longstanding position of professional dominance. In response to these forces of decentralization, physicians began to practice other types of professionalism, which lead to the development and emergence of several competing clusters of medical professionalism. This is not to say that some of these clusters did not exist prior to this phase. In fact, it is entirely reasonable that even during the first half of the 20th century, when the narrative of “nostalgic professionalism” was dominant, that there might have been several other clusters of professionalism. What changed in the third phase, however, was that the forces of decentralization massively decreased the ruling class’s position of power, allowing for the emergence and growth of several already existing and newly forming clusters, specifically entrepreneurial, empirical, and lifestyle professionalism.

The problem, as we see it, is that because the ruling class of medicine has so desperately spent the last thirty years fighting the forces of decentralization, it has not realized that its campaign to re-establish professionalism has not only been challenged by the larger systems of which it is a part, it has not even been embraced by many of its own members, the rank-and-file of medicine. In fact, many physicians, such as those practicing an entrepreneurial, empirical, lifestyle or activist professionalism, *reject* the traditional tenets of nostalgic professionalism. These alternative forms of professionalism have been supported in their resistance by the larger social forces of which they are a part, which include the corporatization of medicine, the newly emerging culture of the professional class and generation X, the feminization of medicine, the continued problems of health care costs and third-party insurance, and the economically troubled state of the federal government. In short, medical professionalism is not what it used to be; it is, in fact, a whole new and very complex social system.

PROFESSIONALISM AS MEDICAL WORK

With the historical forces of decentralization established as our larger field of relations, the next thing social complexity theory and assemblage helped us do was arrange the internal organization of medical professionalism. In

Table 1. The Seven Competing Clusters of Medical Professionalism

	Nostalgic	Entrepreneurial	Academic	Lifestyle	Empirical	Unreflective	Activist
Most Important	Autonomy	Commercialism	Altruism	Autonomy	Autonomy	Autonomy	Social Justice
	Altruism	Autonomy	Interpersonal Competence	Lifestyle	Technical Competence	Interpersonal Competence	Social Contract
	Interpersonal Competence	Technical Competence	Technical Competence	Personal Morality	Commercialism	Personal Morality	Altruism
	Personal Morality	Professional Dominance	Lifestyle		Professional Dominance	Altruism	Personal Morality
	Professional Dominance				Altruism		
Moderately Important	Technical Competence						
	Social Contract	Lifestyle	Personal Morality	Commercialism	Social Contract	Technical Competence	Interpersonal Competence
	Social Justice	Personal Morality	Professional Dominance	Interpersonal Competence	Personal Morality	Lifestyle	Technical Competence
			Social Contract	Technical Competence	Professional Dominance		Autonomy
			Autonomy				
Least Important	Lifestyle	Interpersonal Competence	Social Justice	Altruism	Social Justice	Commercialism	Lifestyle
	Commercialism	Altruism	Commercialism	Social Contract	Interpersonal Competence	Social Justice	Commercialism
		Social Justice		Social Justice		Social Contract	Professional Dominance
		Social Contract		Professional Dominance	Lifestyle		

terms of a complex system's internal state, it is common practice in complexity to make a distinction between organization and dynamics (e.g., Capra, 1996; Luhmann, 1995; Maturana & Varela, 1992). Organization refers to the various parts, elements or components that contribute to a complex social system's internal structure. We call this internal organization or structure the *web of subsystems*, which emphasizes Luhmann's important point that these components are systems in and of themselves (1995). At this point, a caveat is necessary. While the internal organization of a complex social system is "real," it also involves an intellectual entity. As in traditional scientific research, it is the complexity scientist's job to decide what subsystems are relevant and why. This is done through empirical inquiry of one type or another—historical, statistical, qualitative, computational. Whatever the technique used, the goal is to create a list of subsystems that, when put together, allow the researcher to understand adequately the organization of the complex social system of study.

We decided to explain the organization of medical professionalism in terms of what we considered to be ten key aspects of medical work. Our rationale for doing so is based on our training as medical sociologists. Unlike many scholars in academic medicine who conceptualize professionalism as a set of values or "value orientations," we see it as a way of organizing work, such that an occupation can claim the status of profession (Freidson, 2001). Some of these ways of organizing work amount to specific value orientations (as in the case of altruism) or beliefs (as in the case of social justice), while others represent specific skills (such as technical or interpersonal competence) or ways of controlling the position of an occupation within the larger bureaucratic structure of which it is a part (as in the case of autonomy and professional dominance).

As shown in Table 1 (see page 20), the ten key aspects of medical work that we arrived at, and our basic working definitions of them, are as follows. *Autonomy* is defined as discretionary decision-making; i.e., you do your work the way you think it should be done (e.g., Hsia, 2001; Schneider, 1998). *Commercialism* is the application of business principles to medical practice and the turning of medical knowledge into a commodity (e.g., Bodenheimer, 1999; Lindorf, 1992). *Social justice* is the idea of medicine as fairness (e.g., Daniels, Light, & Caplan, 1996). *Social contract* is the covenant between medicine and society with reciprocal rights and obligations (e.g., Caellegh, 2001; Coulehan, Williams, Van McCrary, & Belling, 2003). *Altruism* is placing the welfare of patients ahead of one's own (e.g., McGaghie, Mytko, Brown, & Cameron, 2002; Schiedermayer & McCarthy, 1995). *Professional dominance* describes an organizational

arrangement where medicine is in a position of control over the organization, delivery and payment of health care (e.g., Freidson, 1970a, 1970b; Hafferty & McKinlay, 1993). *Technical competence* and *interpersonal competence* refer to the possession of the appropriate skills related to diagnosing, treating and communicating well with patients and others. *Lifestyle ethic* is the devaluation of work in relationship to personal and family life (e.g., Rippe, 1999; Schwartz, Jarecky, Strodel, Haley, Young, & Griffen, 1989). *Personal morality* is one's own personal (as opposed to professional) belief system (e.g., Fox, Arnold, & Brody, 1995).

THE COMPETING CLUSTERS OF PROFESSIONALISM

The fifth way social complexity theory and assemblage helped us was in conceptualizing the *internal dynamics* of medical professionalism. Dynamics refers to the processes by which the agents in a complex social system use the web of subsystems to create, organize, and change the system in response to the demands of the external environment. Complexity scientists use a variety of terms, some new and some old, to describe these agent-based processes, including emergence, evolution, adaptation, feedback, autopoiesis, perturbation, self-organization, and operating far from equilibrium (Capra, 1996, 2002; Cilliers, 1998; Holland, 1998; Geyer and Zouwen, 2001).

In terms of the current study, this terminology helped us understand three important things about the internal dynamics of medical professionalism. First, as shown in Table 1, it helped us understand the different ways that American physicians have organized the ten subsystems of medical work in response to the historical forces of decentralization. For each cluster we rank ordered the ten subsystems of medical work in terms of their relative importance to the physicians within the cluster, with the most important at the top and the least important at the bottom. Because our identification and ordering of the clusters are not based on any particular subsystem, we decided to group the ten subsystems for each cluster into three basic sets: most important, moderately important and least important.

Second, the terminology on dynamics helped us understand the clusters of medical professionalism created by these different ways of organizing medical work. As shown in Table 1, our preliminary analysis revealed seven competing clusters of professionalism—nostalgic, unreflective, academic, entrepreneurial, empirical, lifestyle, and activist—each of which represents a unique way of combining and practicing what we identified as the ten ideals of medical work.

Third, the terminology of dynamics helped us understand the entirely new system of medical professionalism that has emerged over the past ten to fifteen years as a function of the interactions between these competing clusters of professionalism. The purpose of the final section of our chapter addresses this third issue as we focus on describing the seven clusters.

Nostalgic Professionalism and the Ruling Class

The ruling class of medicine is made up of those individuals, groups and organizations that hold an elite status within organized medicine, including the leaders of academic medicine and medical education, the editors of many of the first-tier medical journals such as *Academic Medicine*, *The New England Journal of Medicine*, and the *Annals of Internal Medicine*, along with various organizations and groups such as the American Board of Internal Medicine (ABIM) and the Association of American Medical Colleges (AAMC), the Accreditation Council on Graduate Medical Education (ACGME), the American Medical Association (AMA), and the Liaison Committee on Medical Education's (LCME). We call this group the ruling class because their positions of privilege and authority have afforded them to have a profound influence on the academic discourse of medical professionalism over the past thirty years, so much so that their nostalgic professionalism has become *the* discourse of medical professionalism, one that is "used by administrators, clinical faculty, residency programs, and professional organizations with the expectation of shared meanings and goals" (Wear & Kuczewski, 2004, p. 1).

We call the ruling class's professionalism nostalgic because their campaign—which Wear and Kuczewski call a social movement (2004)—does not advocate a new professionalism, one that reflects the profound external changes and challenges facing organized medicine. Instead, it advocates (attempts to re-establish) a "professionalism of old" for which they long—a professionalism that is grounded in autonomy and dominance and that houses an immense disdain for commercialism. It is within this narrative that commercialism is most unilaterally cast as the antithesis and enemy of "medical professionalism." Their solution is to re-establish professional dominance over it. In this way, nostalgic professionalism is conventional, mainstream medical professionalism, as it has been idealized by organized medicine and the social sciences for the past hundred years (e.g., Starr, 1982).

Academic Professionalism

Closely aligned with the medicine's ruling class are those physicians practicing academic professionalism (e.g., Starr, 1982). Like the majority of the ruling class, these physicians also work in academic medical centers, medical schools, and related medical organizations. And like the ruling class, they have been involved in the nostalgic professionalism movement. However, the similarity ends here.

The main difference is that, unlike the ruling elite, academics are the rank-and-file of academic medicine. These are the thousands of physician faculty who teach and care for patients within the medical school-residency system, which more recently includes the responsibilities of evaluating their students according to the new professionalism competencies mandated by the ACGME. Yet, for all their work with professionalism, it is not really their battle. Instead, professionalism is one more thing they have to juggle in their daily regiment of teaching and clinical practice. It is for this reason that, while they rank altruism high and commercialism low, they do not place much stock in issues of autonomy or professional dominance. For them, while the forces of decentralization (particularly commercialization) are an issue, the professionalism campaign is strictly an academic affair and is therefore low on their list of things about which to worry (e.g., Coulehan & Williams, 2003).

Entrepreneurial Professionalism

In almost direct opposition to nostalgic professionalism stands entrepreneurial professionalism. Interestingly enough, while this cluster has grown in significance over the past twenty years, it is not new. As any historian of medicine knows, there has always been an entrepreneurial element to medical work and there have always been physicians who have practiced medicine as a business (e.g., Brown, 1979; Lewis, 1925/1998; Starr, 1982). In fact, this entrepreneurial spirit was the commercialism that organized medicine sought to get rid of—with considerable success—during the late 1800s and early 1900s. What changed in the 1980s was Wall Street's discovery of clinical medicine as a profit center, which re-invigorated an ethic of commercialism in the examination and operating rooms of clinical medicine, legitimating the desire of a significant number of physicians to ground their professionalism in the ethics of business. And so was born entrepreneurial professionalism (e.g., Hafferty, 2004, 2005).

Entrepreneurial professionalism is comprised of physicians from just about every area of medicine, ranging from physicians who started their own

specialty surgery or imaging centers to those practicing boutique and retainer medicine, to those performing vanity plastic surgery or selling Amway products in their offices (e.g., Hafferty, 2005). Despite these differences, the theme of this cluster is consistent. In the past thirty years, the costs of health care have skyrocketed, patients are not as safe as they should be, too many patients have no or poor health care insurance, and too many physicians fail to practice according to the evidence. By grounding the organization, delivery, and payment of health care in the principles of business, entrepreneurial professionalism—at least as an ideal type—can fix these problems, guarantee a better product to a larger number of patient-consumers, and do so at a cheaper price. This, they believe, will lead to a better health care system for everyone.

Lifestyle Professionalism

Riding on the back of entrepreneurial professionalism is the newest and youngest of the seven competing clusters: lifestyle professionalism (e.g., Rippe, 1999). Lifestyle professionalism is the culmination of some of the most important economic, cultural and political changes of the last forty years. In addition to the forces of decentralization, it includes the civil rights movement, the counterculture movement of the 1960s and 1970s, the rise of professional class culture, the feminization of medicine, the environmental movement, and the emergence of the postmodern, global society in which we now live. Its most immediate force, however, is entrepreneurial professionalism because, without the proliferation of new practice opportunities, including the possibility of working in a shared practice, a salaried part-time position, or as a *locum tenens*, lifestyle physicians would not be able to practice the alternative forms of work in which they are interested.

The physicians practicing lifestyle professionalism range from part-time female physician-mothers (e.g., Wear & Castellani, 2001) to physicians interested in working with fewer patients, that is, those who simply do not want to work that hard. The majority of physicians in this cluster represent the latter. Despite these differences in outlook and motivation, the general age and theme of lifestyle professionals are the same. These are younger physicians (usually under 40) who believe that nostalgic professionalism over-emphasizes work at the exclusion of other values and social institutions—such as personal and family life, friends, marriage, physical and mental health, hobbies and even fun. They believe that the current workaholic attitude of traditional medicine is bad for the health and well-being of physicians and their patients. As such, lifestyle professionalism is

all about “balance.” Even when it comes to altruism, for example, lifestyle professionals believe there should be a balance between one’s self and the needs of one’s patients. For some, this means that one must take care of oneself *before* one can adequately care for others. In either case, lifestyle professionals believe that their approach to professionalism leads to a win-win situation for everyone (e.g., Rippe, 1999; Schwartz, Jarecky, Strodel, Haley, Young, & Griffen, 1989; Wear & Castellani, 2002).

Empirical Professionalism

Empirical professionalism is the alter ego of academic professionalism. Like its brethren, empirical professionalism houses/captures those academic physicians whose function is as physician/academic-researchers, as opposed to physician/academic clinicians. Similar to their counterparts, academic researchers have been professionalism players since the mid to late 1800s. Initially, they were the “gentleman-physicians” who dabbled in their home laboratories (e.g., Lewis, 1925/1998). Following World War II, and with the advent of the National Institutes of Health (NIH), these physicians became an important part of the academic medical center. Once again, it was not until the 1980s, when Wall Street began to embrace biomedical research on a broad scale that empirical professionalism took on a shape of its own (see Starr, 1982).

Unlike the other clusters, empirical professionalism is a smaller and more homogeneous group of physician-researchers who see themselves (and often are treated) as occupying the top of the academic medicine pyramid. They are the ones who are responsible for creating new medical knowledge and tools. Because of their belief in the ultimate benefit of their ideas, autonomy and technical competence are ranked high, but then so is commercialism and their assumed “right” to benefit from their discoveries. Because academic medical centers are so dependent upon the prestige and indirect costs they generate through grants, and because so much of this research depends upon multi-million dollar research funding, empirical professionals have a pragmatic understanding of the importance of generating money. And so they have emerged as a major contender in the field of medical professionalism.

Unreflective Professionalism

The sixth major cluster is unreflective professionalism. The physicians who occupy this cluster are the older rank-and-file community/street physicians. They are not researchers, activists, or entrepreneurs. Nor do not

work in academic medicine, publish articles or place high priority on issues of lifestyle. They are however, the traditional backbone of the health care delivery system in the United States. They keep their nose close to the clinical practice grindstone, knowing (and sometimes, even caring) little about the “big issues” coursing through medicine. These are the physicians who get up every day, go to their offices, and treat patients. Their lack of involvement in the whole dynamic of re-establishing or resisting the nostalgic professionalism of the ruling class is why we refer to them as “unreflective.” In fact, many of them are not even aware that any sort of “professionalism” movement is taking place. It is also for this reason that they have almost no voice in the academic medicine literature.

This does not mean, however, that the forces of decentralization do not seriously challenge them. As the primary providers of care, they live the daily struggles of work in a complex health care system and, as such, they are very concerned about issues of commercialism, autonomy, altruism and competence. Their lack of input to the “formal” professionalism discourse, however, condemns them to a certain marginal status within the professionalism campaign. They are not concerned about debating definitions, creating measurement schemes, evaluating the professionalism of students, or of patenting the next big discovery in bio-technological medicine and thus the next hot start-up company. Instead, they are primarily concerned with staying afloat with respect to practice economics, practice knowledge and skills, and practice value orientations. There is nothing “cutting edge” about them.

Activist Professionalism

Of the seven clusters presented here, the most consistent in size and stature over time (tracing all the way back to the early 1900s), is activist professionalism (Starr, 1982). Basically, this is a historically small and ideologically focused group. They also, with respect to the currents of traditional professionalism, are a rather marginalized group (e.g., Brown, 1979; Burrow, 1977). Because of their small group size and homogeneous value system, this cluster is composed both of rank-and-file physician activists, along with those like Paul Farmer (2003), Howard Waitzkin (1991) and David Hilfiker (2002) who have found a media outlet (academic or popular) for their views. Physician activists range from those who work in public health and community medicine to those who provide medical care for underrepresented and underserved populations to those who campaign for national health care (e.g., Physicians for a National Health Program).

The dominant concern of this cluster is social justice. They take their Hippocratic Oath very seriously, believing that medicine is not a business, a research institute, an elite occupation, a lifestyle, or a way to rise in income, status or power. Instead, they believe in *living* their commitment to their patients and to society to provide the care that is needed. It is for these reasons that they place high priority on social justice, social contract and altruism, and rank low the issues of commercialism, lifestyle and professional dominance. There is, however, a critical irony here. These are the physicians who best exemplify, in terms of their daily work, the ideas and ideals of self-less professionalism. These are the altruists. At the same time, activist physicians are generally seen by their peers as professionally deviant. It is for this reason that we refer to them as activists: it makes it clear that their *level* of commitment to the health and well-being of patients is politically, economically, culturally, and, most important, organizationally outside the boundaries of what is considered professionally mainstream.

ASSEMBLING THE SYSTEM

Now that we have a basic understanding of how we went about conceptualizing medical professionalism as a complex social system, it is time to put everything together. We began this study with a critical question. We wanted to know if the ruling class's efforts within organized medicine over the last twenty years to re-establish an ethic of professionalism have obscured the possibility that physicians today practice more than one type of medical professionalism. To answer this question, we turned to the sociology of complexity (e.g., Geyer & Zouwen, 2001), specifically social complexity theory and the method of assemblage, which we are currently developing to help researchers study the complex dynamics of many social phenomena (Castellani & Hafferty, forthcoming).

Based on our empirical analyses, we concluded that for the last thirty years the professional dominance of U.S. has been consistently and rather successfully challenged by a series of decentralizing historical forces that go by the names of deprofessionalization, corporatization and proletarianization. More specifically, these forces have undermined the traditional professionalism of the ruling class of medicine, allowing for the rise in power and size of an alternative network of competing clusters. Still, for all of this change, it appears that the nostalgic professionalism of the ruling class currently maintains a position of dominance, particularly within academic medicine and medical education. But this may not be for long.

Remembering that these clusters of professionalism do not exist in isolation from one another, and that as a network they represent medical professionalism's response to the forces of decentralization, it is possible that entrepreneurial professionalism and lifestyle professionalism may be in a unique position to take over. The forces of decentralization, specifically commercialism, seem to be fueling their continual rise in size and power, particularly over the last ten years. This potential takeover may be further reinforced by the fact that the ruling class has done little to align itself with its more natural ally, activist professionalism. The ruling class also has failed to recognize the lifestyle professionalism of younger physicians, medical residents and students as a viable competing force. This is made further problematic by the potential of rank-and-file academic physicians to treat professionalism as a strictly academic affair and for the majority of older practicing physicians to remain on the sidelines in terms of recognizing or reflecting on what is happening.

Still, our results are preliminary. Further research needs to 1) examine our conceptualization of professionalism as medical work; 2) determine the empirical validity of the seven clusters we identified; 3) decide if any of these clusters overlap with each other or are comprised of a series of sub-clusters; and 4) examine the impact these competing clusters are having on each other and the system of medical professionalism as a whole.

Despite the need for additional research, we believe our basic tenet is foundational. While the exact number of competing clusters is open for debate, and while the ten subsystems may be modified or redefined, it is clear that more than one discourse of medical professionalism exists. It is on this basic point that we challenge the current literature on professionalism, particularly as it is applied to medical education.

TEACHING AND EVALUATING PROFESSIONALISM

The following are our recommendations for improving the future teaching and evaluation of medical students and residents. Because they are based on our preliminary results, future research should explore them further.

The Academic Medicine Literature

1. The current discourse on professionalism needs to be re-conceptualized to take into account the empirical fact that medical professionalism is a complex social system comprised of several competing clusters of professionalism.

2. As part of this re-conceptualization, scholars need to recognize that the current discourse on professionalism reflects the nostalgic professionalism of the ruling class.
3. Scholars writing from other perspectives, particularly those practicing an entrepreneurial, lifestyle and activist professionalism, need to be heard.
4. A voice also needs to be given to the struggles and viewpoints of the majority of older physicians practicing an unreflective professionalism.
5. Current measures for assessing professionalism need to be retooled, if necessary, to assess the different types of professionalism physicians practice.
6. Scholars in the academic medicine literature need to integrate more fully their ideas with medical sociology in order to better conceptualize the impact the forces of decentralization are having on medical professionalism.

Medical Educators

1. Medical educators (i.e. administrators, clinical faculty, residency directors, preceptors, basic science faculty, etc.) need to become explicitly involved in the process of addressing the complexities of professionalism.
2. Seminars and other forms of evaluation need to be provided to medical educators to better understand a) their own views about the forces of decentralization, particularly commercialism, and b) the type of medical professionalism they practice.
3. Further research is needed to determine if and why the majority of clinical faculty treat the teaching and evaluation of professionalism as routine.
4. Further research is also needed to understand the different types of professionalism that clinical faculty (e.g., preceptors, adjuncts, etc.) may be unreflectively bringing to their interactions with students and residents.

Curriculum

1. The current curriculum needs to be assessed to determine the ways in which it “has defined, organized, contained, and made seemingly immutable a group of attitudes, values, and behaviors” at the expense of all other ways of practicing professionalism (Wear & Kuczewski, 2004, pp. 1-2).
2. Further research needs to explore how the forces of decentralization and the current competing clusters of medical professionalism are making

their way into medical education, particularly through the hidden curriculum.

Medical Students and Residents

1. Medical students and residents need to become explicitly involved in the process of addressing the complexities of professionalism.
2. Seminars, lectures, courses, and other forms of teaching and evaluation need to be provided to students and residents so they can understand a) their own views about the forces of decentralization, particularly commercialism, and b) the different types of professionalism they are interested in practicing.
3. To facilitate points one and two, medical educators need to help students identify—as early as the first year and then throughout their medical education—the different types of professionalism they are interested in practicing.
4. Medical educators also need to realize that students and residents are likely to view physicians who practice a nostalgic professionalism as patronizing, old-fashioned, outdated, and unhealthy.
5. Finally, medical educators need to realize that they can no longer teach, conceptualize, or evaluate their students' or residents' concerns about commercialism and lifestyle as if they are mere threats to professionalism. Instead, they need to acknowledge and address the complex reasons why the current generation considers these issues so important. This way, medical educators can provide students and residents the tools they need to uphold the professionalism promise they make to their patients and the society in which they live.

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