& PROFESSIONS PROFESSIONALISM

ISSN: 1893-1049 Volume 3, No 2 (2013) http://dx.doi.org/10.7577/pp.562

Carina Carlhed

The Rise of the Professional Field of Medicine in Sweden

Abstract: This article is an analysis of conditions enabling the rise of the professional field of medicine in Sweden. The analysis is based mainly on secondary data, while the use of primary data is restricted to official statistics. Primarily, it aims to study the conditions promoting professionalization in medicine. Important exogenous conditions were derived from early emerging nation state administration structures concerning policy and governance of public health, as well as a delegated supervision of professional health activities to the medical profession and the organization of a public national health care system. Professionalization strategies such as social organization of the medical profession and their use of a variety of legitimizing resources as tools for jurisdictional claims are considered as endogenous conditions. Broadly, the analysis shows a close relationship between the growth of professionalization in the field of medicine and the development of state prosperity in the Swedish welfare state.

Keywords: professions, medicine, doctors, history of medicine, jurisdiction, professionalization, professional knowledge

The present article contributes with a historical narrative about the conditions promoting professionalization in medicine from the state formation process in Sweden in the 1500s to the early 1970s.[1] It gives the international audience a brief account of the rise of the professional field of medicine in Sweden. The analysis is based mainly on secondary data, while the use of primary data is restricted to official statistics. The conditions promoting professionalization in medicine are analysed in three time periods:

1) The rise of state medicine and the pre-professional era, 1600-1850s
2) The biomedical paradigm shift, 1860-1920s
3) The professional golden age and emerging effects of rationalization, 1930-1960s

These phases result from the analysis and roughly correspond to periods of:

1) Establishment of a field,
2) Qualitative, or cognitive, take-off,
3) Quantitative take-off and cultural hegemony.

Carina Carlhed
Department of Education, Uppsala University

Contact:
Box 2136
SE-750 02
Uppsala
Sweden
carina.carlhed@edu.uu.se

[1] The analysis is part of a large, joint research project with several other professional fields that explores the professional landscape in Sweden, both historically and contemporarily (see Brante, this volume). Thus, the case of medicine is, among other cases, part of a larger case study which uses focused, structured comparison as a method (George & Bennett 2005).

Received:
12 March 2013

Accepted:
25 November 2013

The general analysis of the conditions promoting professionalization revolves around two key dimensions. First, there is a social dimension including the social organization of the profession, the professionalization strategies, jurisdictional claims and the outcomes of these activities. Then there is a cognitive dimension aimed at reflecting on the profession's relation to developments in medical science and their impact on the content of professional knowledge, and henceforth the status of professional medical knowledge. Medical, scientific knowledge is a key legitimizing resource in jurisdictional claims and is therefore considered an important condition promoting professionalization.

Conceptual tools

The analysis is mainly based on Abbott's conceptual tools for research of professions, in which central notions are that professions compete to gain control of task areas in terms of jurisdiction and that there are a range of possible settlements of these jurisdictional conflicts (Abbott, 1988, p. 33, pp. 69-79). An important legitimizing resource in the struggles is the professional formal knowledge systems and their cognitive strengths in claiming jurisdiction or classifying a professional problem, reasoning about it, and acting on it (Abbott, 1988, p. 40), which is a form of intellectual jurisdiction.

In the article, specific events are considered valuable for a study of professionalization. The choice of these events is inspired by Abbott's design topics from 1991, such as association, control of work and professional dominated worksites, licensing, professional knowledge, scientific development and professional education, scientific transformation and specialization (Abbott 1991, p. 355). Abbott also analyses specific legitimizing strategies which professions use in order to gain cultural and legal authority, e.g. cognitive strategies, such as expanding an initial jurisdiction to maintain optimum abstraction by either division or amalgamation (Abbott 1988, p. 105). The profession appears homogenous with sharp boundaries with objectively defined tasks, which means that the professional activities are easy to understand and could be seen as effective (Abbott, 1988, p. 60). The disadvantage of amalgamation is that the construction encloses heterogeneity, which creates an inner tension (e.g. Weisz, 2003). Thus, the profession has to handle the paradoxical forces of homogeneity and heterogeneity, as well as imperialistic strivings and residuality in their jurisdictions.

When considering previous studies on the emergence of the health care system in Sweden, it is clear that the professionalization process of medicine must be related to a strong state and its activities in the health area. An important conceptual contribution has been made by Gustafsson, who writes about organizational traditions and consequences of ratchet effects in the state commission activities in the early development of the Swedish health care system (Gustafsson, 1987). When regarding Abbott's thoughts about successful jurisdiction on the legal, public and workplace levels (Abbott, 2005, p. 247), the present analysis recognizes the number and combination of actors and the ability to facilitate alliance strategies and assemble acts of volition in the same direction quite simultaneously. Meanwhile, special attention is given to the power of the state in legitimizing professional health activities. Thus, the social organization of a profession plays an important role, as does its links to the organization of a state-

governed health care system. The use of Abbott's concept is primarily a tool to analyse the Swedish case and, to a lesser extent, compare the professionalization within it to American medicine.

An additional concept in the analysis is take-off, which occurs in two modes: qualitative and quantitative. The first refers to cognitive shifts in the use of specific professional knowledge, and the second marks radical jumps in the number of professionals or professional institutions. All in all, both modes of take-off contribute to describing formative moments in history (see also Brante, this volume).

Field formation: The rise of state medicine and the pre-professional era 1600-1850s

The period between the mid-17th and mid-19th century is characterized as a pre-professional era with an unordered, heterogeneous and decentralized medical practice that became more regulated and centralized toward the end of the period. The period begins in the 17th century after the foundation of Sweden as a nation state; that is, according to Mann, "a state claiming formal political sovereignty over 'its' territories and a legitimacy based on the 'people' or 'nation' inhabiting them" (1997, p. 476). At this time, folk medicine was quite widespread, but also quite tightly associated with mystical beliefs and occultism (Gustafsson, 1987; Stolt, 1997). Only a small number of legitimate doctors practised medicine, and their diagnoses and treatments were generally based on ideas of pathological imbalance between vital body fluids (blood, mucus/phlegm, yellow bile and black bile) (Stolt, 1997).

The conditions promoting professionalization in medicine developed in close relation to the growing state administration for creating a proper social order. The medical profession responded to the urgent need of supervision of the public and the nation's capability to represent and/or defend itself in case of war. In the mid-17th century, Sweden was an expansive and ambitious nation, and several Royal Collegiums were founded from the emerging Royal Administration to govern different areas of interests in the growing nation. One of these collegiums was at first a private association of medical doctors called Collegium Medicum. The association was engaged by the Royal Administration to tighten up the regulation of health services. Initially, this was primarily in terms of restricting quackery, but Collegium Medicum also received exclusive Royal Privileges in supervisory issues in 1663. These were related to the Royal Ordinance on health and sickness in 1663 and the enactment of health occupations in 1688. The latter met considerable opposition from the barbers and pharmacists, whose privileges were challenged, and the process was delayed for ten years due to their resistance (Björkqvist and Flygare, 1963; Gustafsson, 1987). In Abbott's terms of jurisdiction (Abbott, 1988, p 59), these were events that ensured that medical doctors were able to take political and legislative control over the field of medicine, in spite of the resistance from other occupations.

In Europe at this time, mercantilism on the one hand and Cameralism (the German science of administration from Kameralwissenschaft) on the other, contributed to a spread of ideas about economic accumulation through the exploitation of natural resources and a healthy and productive labour force. These interests also became a driving force in the emerging supervision of the health of

the Swedish people by the state. The main intention was to limit mortality rates from epidemics and poverty. The mode of the state at the time can be defined as activist, which means that it continuously strives to implement and refine comprehensive care for its citizens. More and more private institutions and services were substituted by state-governed institutions, some even more like "annexes of state agencies" (Damaška, 1986 in Freidson, 2001, p. 137). However, large swaths of the population had, by this time, also become divorced from their traditional means of self-sufficiency, and one of the main concerns was to shape a new social and economic order. This aim lay behind a project termed "The Great Confinement" (basically a large-scale imprisonment of beggars and vagrants). Identifying foundational criteria for the determination of grounds for incarceration became a responsibility of the Collegium Medicum, thus increasing their jurisdiction. In its emerging supervisory function, the Collegium Medicum was supported by the priests and provincial medical practitioners, who provided information about people's health and living conditions. This information was compiled in collaboration with a state-governed statistical department, Tabellverket.

By the mid-18th century, the growth of the population and their health had become an urgent matter, primarily due to the depressing results of a national census (Johannisson, 1994). The Collegium Medicum was asked to comment on the results, and after a summit with a newly appointed Health Commission they returned with an optimistic strategy and prognosis about how epidemic diseases such as smallpox and measles could be attended to.

The close collaboration with the Health Commission on the proposal of effective interventions towards small pox helped the medical profession win legal and cultural legitimacy as the state managed to establish order among the health providers and fortify an intervention programme for measures against epidemic threats to the population, and was ensured of a more secure population growth for the expanding nation. Henceforth, after a parliamentary debate in 1756, the Collegium Medicum was acknowledged as adviser to the parliament, and the birth of a sanctioned state medicine could be set at this point (Gustafsson, 1987). The Collegium Medicum later became a fully-fledged state administrative agency under the name of the National Board of Health (Sundhetskollegiet) in 1813, with orders to provide the state with a complete supervisory system over national health care and a system of jurisdictions (Gustafsson, 1987).

The close relationship between the state and the Collegium Medicum gave the latter opportunities to influence the development of health policy and the organization and jurisdiction of the health care system. So far, the jurisdictional battles had been easily won, as most of the other health workers were not mobilized. One exception was the surgeons. They had the oldest guild privileges in the field, from 1571, but were organized as a commercial guild (Barberarämbetet: the Barbers Guild Board, formerly Bardskärarämbetet, the Bard Cutters Guild Board, from 1496). They formed the Surgeons' guild first in 1685, under the name Societas Chirurgica, and in 1797 they were merged with the Collegium Medicum after a number of jurisdictional battles (Gustafsson, 1987; Kock, 1948).

As mentioned earlier, the Collegium Medicum has had an advantage over other professions in the field through its close relationship to the state administration and control over health policy. However, by being the first legitimized professionals in the field, this also enabled the association to have a huge impact on the continued

history of upcoming professions and on which *kind* of medicine was to be supported and strengthened by theoretical studies. For the Swedish medical doctors, this meant that public jurisdiction was won early, as it also was in other countries (Abbott, 1988, p. 64). From the new level of social and cultural authority, it became possible to work on refinement of the jurisdiction in the legal arena.

The initial audience for the Collegium Medicum was the expanding state administration, which had to be persuaded about the need for medical surveillance of the population and governance of the professional health area. The scientific community of the Swedish Society of Medicine (Svenska Läkaresällskapet) was formed in 1808. It gave more necessary credibility to the medical profession, and local professional organizations were formed in the early 1800s (Eklöf, 2000), but in general, the powers of the Royal Collegiums were increased and made autonomous from the monarchy already in 1718-1772, when the official independent state administration 'Ämbetsmannastaten' was formed as a means to secure the long-term interests and continuity for society as a whole, rather than only for the regent (Nilsson, 2000). The state, with its nation building aims, was more of a forum type of government than a palace type at this time (Finer, 1997 in Premfors, 1999). This facilitated the opportunities of the Collegium Medicum within the emerging state, along with the other five collegiums that were founded in 1634. The Collegium Medicum could gradually work themselves into the state apparatus.

The medical profession was rewarded through these developments with a very early statute of protection for the title of medical doctor (tied to a doctoral degree) (Björkqvist & Flygare, 1963; Gustafsson, 1987). Rewards were also the life-long status as a public official (ämbetsman) and a supervisory position and expert status in state health affairs (Gustafsson, 2000). These circumstances mentioned above were exogenous and favourable conditions for the growth of professionalization in medicine. They paved the way for expanded and full jurisdiction on the political/ legal arena as well as on the public arena.

The first qualitative take off – the core of medicine and medical knowledge

As stated above, the Collegium Medicum used its early advantage to establish jurisdiction to defend closure strategies that opposed intruders. This was initially centred on the issue of quackery (Eklöf, 1998; Palmblad, 1990), but according to Abbott's terminology, it also could be understood as entailment of a progressive strategy for expanding an initial jurisdiction by cognitive means and maintaining optimum abstraction by amalgamation (Abbott, 1988, p 105). The surgeons, who were absorbed into medicine in 1797, and later, the orthopaedists, form excellent examples of both amalgamations (fusion of organizations and surgery + theoretical medicine = medicine) and expanding the jurisdiction by including the surgeons' jurisdiction into the one of medicine. Surgery and medicine were combined and integrated into the field of medicine in a manner that brings to mind exactly how the regularly changing scheme of medical specialties is a product of amalgamations that are closely related to the development of medical science, which *itself* is an amalgamation of branches in the natural sciences like physics, chemistry and biology with anatomy, physiology and surgery.

Thus, the core of medicine has changed over time. The core or main subjects in the professional education were consequently also amalgamations that have changed over time and in relation to developments within medical science. To study medicine in medieval times involved studies in humour pathology, anatomy, zoology, botany or even animism (Lagerkvist, 1999; Bergstrand, 1963). However, through pioneer work by Morganini in Italy, anatomic pathology developed as a new area of scientific studies during the 18th century. The innovation here was the opening of corpses to search for signs of disease in the body organs, and not in the air or in the environment (theories of miasma). Anatomical pathology thus changed the nosology of medicine from a purely classificatory to an also etiological activity. Anatomical pathology became a new approach to the registration and documentation of diseases and paved way for medicine to develop as a positive science. Hospitals were excellent sites for comparing diseases, especially in Paris, where the largest hospitals in Europe were located (Stolt, 1997).

The search for the origin of diseases in body organs is here considered a first *qualitative take-off* in the development of a medical profession with a hegemonic position, as it formed a new systemized way of understanding diseases—a cognitive shift. By looking even deeper into the human body and its parts, later with aid from technical innovations like the microscope, research specialties like tissue pathology and cellular pathology developed.

Other natural sciences (such as chemistry and physics) were also applied in the study of human organs, tissues and body fluids, which later came to underpin a second qualitative take-off—the biomedical paradigm shift. The development in general science, and particularly in medical science, created conditions for an intellectual jurisdiction, which meant that medical doctors were able to keep a form of cognitive control over the field of medicine (Abbott, 1988, p. 75).

However, the qualitative take-off mentioned earlier changed the opportunities to actually claim rigour in the formal and abstract knowledge system and to classify and make inferences about treatments. It was a real improvement compared to the earlier medical practice with the old ideas about sickness derived from natural philosophy and mysticism. The prestige of the professional knowledge system became connected to the ability of the profession to keep and defend its jurisdiction. The more logical, scientific and rigorous the knowledge system, the more prestigious and untouchable is the jurisdiction (Abbott, 1988, pp. 104-108).

The consolidation and constitution of the field: The biomedical paradigm shift 1860-1920s

Until the mid-1900s, Swedish reform policy had been conservative and contributed to a growing mistrust towards social groups who claimed more societal influence. An Act of Parliament in 1866, which reinforced the new middle class and gave opportunities for radical access to European trading, as well as increased social and demographic mobility, changed all of this. The new conditions of mobility of capital and labour were beneficial to the development of industrialization. The new era contributed to stronger state finances, which facilitated investments in infrastructure and the expansion of state institutions. But there were also new demands for organized health care for the poor. The health care organization at the time was

mainly non-institutional, and health care policy supported both institutional and non-institutional care.

The earliest organization of public care was organized in three domains: body care, mental care and poor relief. This gave a functional but rather coarse structure that has endured into the contemporary social organization of public needs. Gustafsson (1987) termed this way of organizing societal support *organizational traditions.*

The growth of hospitals doubled seven times during 1860-1920, and the number of medical practitioners doubled three times (SCB, 1919, 1925; Bergstrand, 1963; Kock, 1948). Due to this expansion, the old traditional organizational structures mentioned above were reinforced in terms of institutional care for somatic care, mental care, and care for the poor. The hospital organization was consolidated around logic of acute care and curable diseases, while the non-institutional care and preventive care were pushed aside. Thus, it was the organizational traditions that primarily laid the foundations of the future structure of the health care system, not scientific discoveries. This suggestion stands in clear opposition to the dominant narratives that have developed within the history of ideas. It states that the existing history of the organization (social and material conditions and relations) guide the development of institutions and the growth of knowledge, not the opposite.

By organizational means, biomedical medicine was co-opted into the existing health care structure by the late 1800s in line with the dominant logic and the old organizational patterns, which were thus maintained (Gustafsson, 1987). The early and rapid organizational growth in favour of a certain branch of medicine (acute somatic care) is here seen as consolidating the jurisdiction for the medical profession and its core task—which is to cure. This is considered a *quantitative* take-off in the medical field in favour of hospital doctors and somatic care. The growing numbers of hospital doctors also contributed to a notion of a solid work force, and mobilization activities into professional organizations emerged (Beronius, 1994). An example is the fusion of two separate labour unions, one representing the provincial doctors and one representing the hospital doctors, which formed a single union—The Swedish Medical Association (Svenska Läkarförbundet) in 1903 (Björkquist & Flygare, 1963).

Social organization, amalgamation strategies and jurisdictional control

The social organization of a profession plays an important role in terms of groups, control and worksites. Small local groups could amalgamate into larger ones, and the more the profession is structured, the more effective it becomes in claiming jurisdiction. The existence of a single easily identifiable national association is also an important condition for being successful in legal or public claims of jurisdiction (Abbott, 1988, p. 83).

The establishment of collegiums and increased social mobilization in terms of associations and unions are considered here as important formative events in the field, and as strong promoting conditions for the rise of professionalization in medicine. Besides the doctors' involvement in the state administration through the National Board of Health (Sundhetskollegiet) in 1813, under its new name, the National Board of Medicine (Medicinalstyrelsen), along with more responsibility

in 1877 (both descendent from the Collegium Medicum), the dominant position was strengthened. The control of entrance into professional practice became a state responsibility controlled by the new authority. On the one hand, this could be seen as a restraining condition for professionalism and jurisdiction, where the medical doctors lost control (see Garpenby, 1989), but on the other hand, the National Board of Medicine was ”manned” by doctors. The state controlled entrance to the profession by proxy, through the doctors' function as officials. Thus, professional control was in a way shared by both the profession and the state.

At the workplace level, the hospitals have generally been governed by a county administration since 1862. This allowed two parallel hierarchies to develop, one around the chief physician or heads of clinical departments regarding medical responsibility, and one around a hospital director with administrative and financial responsibility (Gustafsson, 1987). In terms of Freidson's work on professionalism where he discusses horizontal and vertical careers (2001, p. 76), the Swedish doctors have had opportunities to pursue different careers. The links between the state, the profession and the administrative authority is possible by vertical career paths, as mentioned earlier, but also in the management of clinical departments at the state-governed hospitals.

The previously protected doctor title reached an end in 1915, with the first law on qualification for the medical profession in the state-governed hospitals (Janlert, 2009), through which the protection of the doctor title disappeared, as the new law instead protected areas of health activities in favour of the concept of legitimately educated doctors (Eklöf, 1998; SFS 1915:362). Nevertheless, the medical profession had substantial control of professional practice during this period due to its administrative authority, control of professional education and specialization authorization.

Retrospectively, regarding the social structure of the medical profession, we can conclude that there has been a chain of constitutional events, including, firstly, *amalgamation* of the surgeons' society into the medical collegium in 1797 and, later, of orthopaedists as subordinated to surgery in 1905. Secondly, the chain of events included the creation of the Swedish Society of Medicine as a scientific society in 1808 and the unification of two labour unions into one in 1903 (Einarsdottir, 1997). Thirdly, in the late 1800s, a process of internal division began, in the shape of medical specializations, in Sweden as elsewhere in Europe (Gelfand, 1976; Weisz, 2003, 2006). Specializations were fundamentally professional matters throughout the early 1900s, as doctors could freely choose which area to specialize in, and it was through clinical practice that qualifications as a specialist and appointment rights as a chief physician were won (Bergstrand, 1963).

A similar but delayed unifying process could be seen in academia and amalgamations into *one* uniform professional medical education in 1861 (Bergstrand, 1963). Such amalgamation strategies also applied to nurses. Their entrance into the medical field is dated to 1851, when the first nursing school in Sweden was established. They had managed to obtain jurisdiction by excluding shorter nursing programmes and could claim legal and cultural legitimacy as *one* workforce with *one* legitimate education. The strategy used by the medical profession and nurses is vital in image making and as a tool for cultural legitimacy in Abbott's terminology (1988, p. 60-61). Considerable amounts of effort are therefore made to strengthen the image of a strong core of professional medical knowledge, which is a key

legitimizing resource in jurisdictional claims. A profession is always vulnerable to jurisdictional attacks, and images of a unified education with a unified core of academic subjects and a unified corps of doctors are of course more powerful than an image of a scattered and diversified profession.

The establishment of the biomedical paradigm—the second qualitative take-off

A new cognitive shift took place in the late 19th century, through the bacteriological breakthrough in 1858 and its implications for an effective means to kill bacteria. This breakthrough constitutes the second qualitative take-off in the professional field of medicine, through the development of nosology as a strict etiological structure that pressed natural philosophical medicine aside. The full establishment of the new paradigm was delayed in Sweden, however, since hygienic and preventive actions regarding clean water and improved living conditions also showed positive results. This confused the scientific debate on medical interventions by introducing conflicting arguments for explaining diseases and intervention proposals. The arguments used were often a mix between explanations from bacteriological theory and natural philosophy like miasma theories. However, the laboratories and the microscope became the main tools in the fortification of the biomedical paradigm, and its real establishment in Sweden could be dated to the period of 1907-1918. This is primarily due to its recognition by the state and its impact on social planning, such as the establishment of state and hospital laboratories (Graninger, 1997). The powerful numeric expansion of hospitals and hospital laboratories also provided space for other health occupations, nurses in particular, but also a modest yet steady growth of laboratory assistants.

In the battle concerning effective interventions/treatments, biomedicine gained an advantage through the discovery of vaccines (Sarewitz & Nelson, 2008; Brante, 2010), which allowed its proponents to present a clearly defined and delimited area of expertise (bacteriology) and effective interventions. Meanwhile, social medicine struggled with a huge empirical area filled with real people not living in laboratories, but in dirty, overcrowded homes and sometimes remote places, hence emphasizing the social origins of diseases. Thus, social medicine became charged with political and ethical argumentations in matters of health prevention and health care, and the gap between physical and social medicine grew larger.

More hospitals and laboratories (either governed directly by the state or by the individual hospitals) meant that more biomedical studies could be performed (Persson, 1994). Thus, the creation of new organizations, the number of institutions and the demographic proportions of agents from biomedicine and social medicine, respectively, played an important role in terms of the ability to claim, conquer and defend jurisdictions. The consolidating events in the health care organization mentioned earlier were now added to and amplified by the birth of a paradigm. The demographic advantage of biomedicine, compared to preventive medicine (i.e. the rapid growth in numbers of hospitals/clinics and fast increase of educated doctors and specializations in biomedicine), facilitated success in the legal and cultural arenas of jurisdiction. The image of a solid core of professional medical knowledge with a strong relation to science was present, which strengthened the conditions for professionalization even more.

Internal differentiation and professional knowledge

Besides the internal differentiation or stratification due to authority relations and income within a profession, knowledge is essential for prestige and is the currency of competition that makes scientific knowledge the fundamental base for legitimizing professions and professional work. Thus, it is crucial for professions to be able to classify a problem (diagnosis), explain it (inference), and act on the information (treatment). These are the core principles of professional work (Abbott, 1988, p. 102).

The understanding here is that scientific research secures the logic and rigour of diagnosis and is based on the highest standards of rationality. But in medicine, this created different conditions for different branches in terms of their possibilities to claim solid expertise in relation to science and for making a convincing colligation in Abbott's terminology (1988, p. 41). That is, the logic and trust of the cognitive construction of diagnosis, inference and proposed treatments reflect the profession's ability to perform professional work. It is a matter of persuasion about ability.

The trust in scientific knowledge is also related to the rise of universities, which are generally the main sites for the production of "acknowledged" knowledge. The explanation of biomedicine as so highly prestigious in our time and the depreciation of social medicine are partly to be found in the differences in its relation to natural science and its credibility to prove effectiveness in interventions in relation to a compelling logic and powerful language in terms of control of endogenous variables and different threats to validity. Medicine's jurisdiction over knowledge of the body is therefore compact, but it also has "imperialistic abstractions" (Abbott, 1988, p. 104). Nevertheless, biomedicine has the capacity to offer a robust scientific knowledge base of interventions related to vaccines, penicillin, x-rays and chemo-therapy.

The early researchers in social medicine used mortality and disease statistics as a prime method, and this field of study formed into a specialty—epidemiology, and later social epidemiology. This could be seen as an attempt to legitimize social medicine in terms of being a positive science and hence applying recognized scientific tools and theories in the construction of problems and interventions. However, the objective qualities of social problems are in fact hard to visualize. It is a lot easier to present evidence of bacteria and to colligate and classify a rational picture of bacteria invading the body and needing to be repelled.

Hence, social medicine deals with a system metaphor of "society" and has the difficult challenge of constructing an idea of the origin of illnesses that is to be found in bad living conditions. Even with the social epidemiology approach, which can legitimize social medicine and the need to intervene, social medicine is still vulnerable to jurisdictional questioning owing to the gap between classification/colligation of lifestyle diseases and biomedical classification, and (above all) the proven efficacy of the treatment system. Social medicine interventions/treatments call for profound changes in improving living conditions and justice in health care provision, which, to a large extent, become an issue of political intervention. With regards to Abbott's reasoning, a profession is at risk of losing its legitimacy of expertise in the eyes of the public when the problem is political and can be abolished through legislation (1988, p. 37).

Thus, social medicine as a branch of the medical profession has a weak link to evidence of efficiency in its own arsenal of interventions/treatments, which also weakens its jurisdiction. Biomedicine and its efficiency in the diagnostic-treatment system is risky, but in a different way, by almost being too efficient and predictable. So the secret seems to be one of keeping a balance between invoking too much or too little inference from an abstract knowledge system. Too little inference could signify work of a routine nature and detachment from an abstract knowledge system whilst too much inference makes the activity hard to legitimate due to claims of almost all work being of esoteric character, which would hamper the proof of efficiency (Abbott, 1988, pp. 51-52).

Professionalization in the field: The professional golden age and emerging effects of rationalization 1930-1960s

An upward economic trend developed after the Second World War, and new welfare policies at this time contributed to several reinforcements within the health care and social sectors, such as the introduction of a social security system and inexpensive and more accessible health care, along with the expansion of the number of hospital beds (Åmark, 2005; SCB, 1919, 1921, 1940, 1948, 1950, 1955, 1960, 1968, 1970). These reinforcements bolstered the existing organization that had developed around acute institutionalized care, biomedicine and hospital-based doctors. The state monitored these developments through the National Board of Medicine, which was administered by representatives from the medical profession and thus entailed further reinforcement of the advantage of biomedicine in relation to social medicine, as well as of the existing gender and class structures in the labour force. In other words, it was more of the same (Gustafsson, 1987; Einarsdottir, 1997; Uncas, 1980).

A rationalization movement similar to that initiated earlier within industrial production entered the health care system in the 1930s through ideas about effectiveness and optimization in relation to the problems of an expanding health care sector. Both issues of overall expenditure and of the local county administrations' need to limit and control increased costs were considered (Gustafsson, 1987). The rationalization movement had further gender effects. It was operating *within* existing gender structures, and in the 1960s, its advocates focused primarily on the subordinated groups in hospitals, such as nurses and nurse assistants. Doctors were spared in the rationalization analyses, which led to further reinforcement of the traditional elite structures and organizational traditions. In a way, both doctors and nurses benefited from this, because the large number of nurse assistants became even larger and a restructuring of tasks took place in clinics (with a touch of Taylorism) and among the hospital workforce in general (Gustafsson, 1987).

A transformation of the hospital landscape into a hierarchical model of specialized regional hospitals and basic care was conducted in the mid-1960s. This paved the way for further medical specialization, which resulted in a two-fold display of, on the one hand, a dominant horizontal specialization which the laboratory specialties gained from, and, on the other hand, a vertical specialization where the doctors controlled all diagnostics (Areskog & Ström, 1983). The laboratory assistants (later biomedical analysts) were a vital supporting part for the

laboratory specialties and contributed to an increased efficiency in diagnostic activities in the hospital laboratories (Persson, 1994).

Health care policy once again officially supported both institutional care and non-institutional care at this point, but it is clear that biomedicine and somatic care were enhanced most by the rapid growth of hospitals and the medical offices of provincial doctors. Social medicine, on the other hand, primarily in the shape of the community doctors (also interestingly called poverty doctors), had a more dispersed institutional structure with appointments within the municipalities that needed the support of the local public health committees in larger municipalities (Sundin, Hogstedt, Lindberg, & Moberg, 2005).

When considering that successful jurisdiction on the legal, public and workplace levels depends on the number and combination of actors who have the ability to facilitate strategic alliances and to assemble acts of volition in the same direction simultaneously (Abbott, 2005, p. 247), the above conditions mean that community doctors had a dismal outlook when competing with hospital-based doctors for hegemony in the medical field, partly due to their being outnumbered. There were both fewer institutions for social medicine and fewer practitioners in the field of social medicine compared to hospital medicine. Moreover, the mission of state medicine with respect to preventive activities and calls for improving peoples living conditions were withering.

Professionalization activities from the post-war era were successful for hospital doctors, but it seems that the golden age was fairly short. Their professional association/union, the Swedish Medical Association, initially had control of both qualification/certification and specialization, but then lost it to the state authority in the mid-1960s (Einarsdottir, 1997). However, in addition to the advantages they had gained in administrative authority by their dominance over the National Board of Medicine, medical doctors had also earned cultural and social legitimacy by virtue of their compact scientific knowledge system (of biomedicine), their effective interventions (i.e. vaccines, antibiotics, x-rays and chemo-therapies) and their prestigious university education. Moreover, they also had a strong scientific community with a long history and a national labour union, where the self-image of superiority and individualism as well as their professional ethics were shaped.

The good relationship between the state and the profession was fairly consistent over time (Funck, 2012), and the post-war era was thus their golden age. In 1960, a new legislation was set that prohibited unauthorized health professionals to examine and treat people for fees, which was an important event (SFS 1960:409). Their professional autonomy had been challenged earlier, however, by the Höjer commission in 1948, and was soon to be challenged again. In 1969, medical studies were reformed and the state took control over appointments in areas of specialization. It was no longer possible to freely choose a medical specialty. The intertwined and paradoxical processes of expansion vs. rationalization and professionalization vs. specialization in the health care system in the early 1960s could be seen as an unintended driving force towards an optimization and domination for the logic of biomedicine and the hospital doctors. The medical profession was at its peak at this time and was as close as it ever got to the professional ideal type in Freidson's terminology (2001, p. 182ff), but the peak of professionalism in medicine passed. The welfare state and the medical profession in Sweden and elsewhere were to become unceasingly externally challenged from

the 1970s and onwards, as Freidson has shown (Freidson, 2001, p. 185ff). The economic conditions changed in the early 1970s recession. The expansion of the health care system came to a halt. Rationalization ideas were now dividing the labour force within the hospitals by hierarchy, wages and competence, and a larger share of the subordinate labour force were now more often engaged in low qualified tasks. Demands on efficiency and higher capacity were intensified at the same time as costs increased for specialized care. Despite substantial state subsidies, it was now difficult to meet the growing needs of health care and priority issues became necessary (Sundin et al., 2005).

In 1970s, the ”Seven-crown reform” was implemented. This reform completely changed the conditions for the health care system and its professionals, especially doctors. For the medical profession, it entailed benefits, such as a secure and solid market for their services due to the tax-financed and low unitary fee, which increased the public availability of regular health care. However, at the same time, doctors were no longer permitted to have private clients in the national health clinics or in the hospitals. Their special fees disappeared as the hospitals and clinics were required to have employed doctors, but in consequence doctors became a high salaried group with improved working conditions. It was the endpoint for a prolonged political process towards a fully tax-financed health care system with employed doctors. (Carder & Klingeberg, 1980; Palier, 2006). It was also a heavy restriction in the profession’s economic autonomy in terms of the ability to establish and control economic compensation and fees (Funck, 2012).

Conclusion

The article has discussed conditions promoting professionalization in medicine and a periodization of the historical development with some suggestions of qualitative and quantitative take-offs, which was an important aim of the forthcoming comparisons in the larger case study mentioned earlier (see Brante, this volume). The article has revolved around two key dimensions: the social dimension (the social organization of the profession, the professionalization strategies, jurisdictional claims and the outcomes of these activities) and the cognitive dimension (the profession’s relation to developments in medical science and their impact on the content of professional knowledge).

The dominant position of the medical profession was conquered early, and the conditions promoting professionalization in medicine could be related to the closeness to the emerging state administration in the mid-18th century and its pursuit of a strong and wealthy nation. The analysis has shown critical events in the emergence of the nation state for promoting the medical profession to gain a dominant position within the state administration of health services, such as the responsibility to create regulations of health services and to supervise the health occupations, supervise the conditions of the public health, and suggest state interventions to delimit the effects of poverty and epidemics. In short, at a very early point in time, the profession of medicine was highly involved in the state’s pursuit of shaping a new social and economic order. In addition, the rapid and considerable growth of state-governed hospitals could, using Abbott’s terminology, be seen as new vacancies in the professional system, which in turn demanded a larger medical workforce for a specific set of protected work tasks (1988, p. 90).

The analysis has also shown the importance of old organizational traditions (poverty care, mental care and somatic care) guiding political investments in the growth of a public health care system (Gustafsson, 1987). The asymmetric expansion of acute somatic care in relation to public health/preventive care has favoured certain specialist branches, especially hospital doctors and biomedical activities. The interaction between processes of expansion of (parts of) the Swedish health care system, rationalization activities within it, and professionalization struggles following existing structures formed different promoting and restraining conditions in institutions for different branches of medicine and fractions within them (biomedicine vs. social medicine). The legitimizing resources, in terms of the links between the professions and their abstract knowledge systems, depend on the internal cognitive strengths of the knowledge systems and their capability to link knowledge to effective interventions. The biomedical paradigm has definitely promoted these legitimizing resources and contributed considerably to the strength in the intellectual jurisdiction (Abbott, 1988, p. 75).

The organization into a single, easily identifiable national association was also an important condition for being successful in legal or public claims of jurisdiction, which Abbott also concludes (Abbott, 1988, p. 83). The fact that the Swedish Medical Association was unified has facilitated the consulting process between profession and the state, yet to a lesser extent in the post war period from 1945 than before (Garpenby, 1989). The professional control in terms of leadership and medical responsibility at worksites such as hospital clinics was established in 1862 and was maintained until the early 1970s. In that way, the supervisory function over other health professionals was also maintained. The profession has also had control of the entrance to the profession. In 1915, it had control of protected task areas, and in 1960, a new legislation was passed against quackery. However, in the end of the 1960s, the state took control of appointments in areas of specialization, a former task for the Swedish Medical Association, and the golden age was ended with the seven crown reform in 1970 mentioned earlier. These are events which demonstrate the increased interest of state interventions in the health care in the rhetoric of democracy (see also Funck, 2012). The analysis shows a close relationship between the growth of professionalization in the field of medicine and the development of state prosperity in the Swedish welfare state.

References

Abbott, A. (1988). *The System of Professions. An Essay on the Division of Expert Labor*. Chicago: The University of Chicago Press.

Abbott, A. (1991). The order of professionalization. An empirical analysis. *Work and Occupations, 18*, 355-384. http://dx.doi.org/10.1177/0730888491018004001

Abbott, A. (2005). Linked Ecologies. States and Universities as Environments for Professions. *Sociological Theory, 23*, 245-274. http://dx.doi.org/10.1111/j.0735-2751.2005.00253.x

Areskog, N-H and Ström, G (1983). Sektionen för klinisk fysiologi. In S. Rössner (Ed.), *Svenska Läkaresällskapet 175 år* [The Swedish Society of Medicine 175 years] *(*pp. 84-87). Stockholm.

Bergstrand, H. (1963). Läkarekåren och provinsialläkareväsendet. In W. Kock (Ed.), *Medicinalväsendet i Sverige* [The Medical Administration in Sweden] (pp. 107–156). Stockholm: Victor Petterssons Bokindustri.

Beronius, M. (1994). *Bidrag till de sociala undersökningarnas historia* [A contribution to the history of social inquiries]. Stockholm: Symposion.

Björkquist, E and Flygare, I. (1963). 'Den centrala medicinalförvaltningen', in Wolfram Kock (ed.), *Medicinalväsendet i Sverige 1813-1962*. [The Medical Administration in Sweden 1813-1962] (pp. 9-17). Stockholm: Nordiska bokhandelns förlag.

Brante, T. (2010). Professional Fields and Truth Regimes: In Search of Alternative Approaches. *Comparative Sociology, 9*, 843–886. http://dx.doi.org/10.1163/156913310X522615

Carder, M. and Klingeberg, B. (1980). Towards a Salaried Medical Profession: How 'Swedish' was the Seven Crowns Reform? (pp. 143-172). In A.J. Heidenheimer, & N. Elvander (Eds.), *The Shaping of the Swedish Health System*. London: Croom Helm.

Einarsdottir, T. (1997). *Läkaryrket i förändring* [The change of the medical profession]. Göteborg: Göteborgs universitet.

Eklöf, M. (1998). Läkarna och kvacksalveriet [The doctors and the quackery]. *Res Publica, 40*. 156-167.

Eklöf, M. (2000). *Läkarens ethos. Studier i den svenska läkarkårens identiteter, intressen och ideal 1890-1960* [The ethos of the doctor. Studies on the Swedish doctors' identities, interests and ideals 1890-1960]. Linköping Studies in Arts and Science, 216

Freidson, E. (2001). *Professionalism. The third logic*. Cambridge: Blackwell Publishers & Policy Press.

Funck, E. (2012). Professional Archetype Change: The Effects of Restricted Professional Autonomy. *Professions & Professionalism, 2*, 1-18. http://dx.doi.org/10.7577/pp.334

Garpenby, P. (1989). *The State and the Medical Profession. A cross-national comparison of the health policy arena in the United Kingdom and Sweden 1945-1985*. Linköping Studies in Arts and Science, 39.

Gelfand, T. (1976). The Origins of a Modern Concept of Medical Specialization: John Morgan's Discourse of 1765. *Bulletin History of Medicine, 50*, 511-535.

George, A. L. and Bennett, A. (2005). *Case studies and theory development in the social sciences*. Cambridge, Mass.:MIT

Graninger, U. (1997). *Från osynligt till synligt. Bakteriologins etablering i sekelskiftets svenska medicin* [From invisibility to visibility. The establishment of bacteriology into Swedish medicine at the turn of the century]. Linköping Studies in Art and Science, 163. Stockholm: Carlssons förlag.

Gustafsson, R. Å. (1987). *Traditionernas ok. Den svenska hälso- och sjukvårdens organisering i ett historie-sociologiskt perspektiv* [The burden of traditions. The organization of Swedish health care]. Stockholm: Esselte Studium.

Gustafsson, R.Å. (2000). *Välfärdstjänstearbetet.* [Work of welfare services]. Göteborg: Daidalos.

Janlert, U. (2009). Socialmedicinens väg till specialitet. [The way of social medicine towards a specialty]. *Socialmedicinsk tidskrift, 5*, 403.

Johannisson, K. (1994). The people's health: public health policies in Sweden. In (Ed). D. Porter: *The history of public health and the modern State*, (pp. 165-182). Clio Medica, 26. Amsterdam: Rodopi.

Kock, W. (1948). Sjukhusväsendets utveckling i Sverige. In E. Edén & S. Johansson (Eds.), *Svenska sjukhus*, del 1 [Swedish hopsitals, part I] (pp. 9–44). Stockholm: Gothia.

Lagerkvist, U. (1999). *Karolinska institutet och kampen mot universiteten*. [The Karolinska Institute and the struggle against the universities*]*. Hedemora: Gidlunds.

Mann, M. (1997). Has globalization ended the rise and rise of the nation-state? *Review of International Political Economy*, *4*, 472-496.

Nilsson, T. (2000). *Ämbetsmannen i själva verket – rekrytering och avancemang i en moderniserad stat 1809-1880* [The state official per se – recruitment and promotion in a modernized state 1809-1880]. SCORE rapportserie 2000:5.

Palier, B. (2006). *Hälso- och sjukvårdens reformer. En internationell jämförelse.* [The reforms of health care. An international comparison]. Sveriges Kommuner och Landsting.

Palmblad, E. (1997). *Sanningens gränser. Kvacksalveriet, läkarna och samhället, Sverige 1890-1990* [The borders of truth]. Stockholm: Carlssons.

Persson, B. (1994). *När kvinnorna kom in i männens värld. [When the women entered the men's world].* Lund: Lunds universitet.

Premfors, R. (1999). *Sveriges demokratisering.* [The democratization of Sweden]. SCORE rapportserie 1999:3.

Sarewitz, D., & Nelson, R. (2008). Progress in Know-How. Its origins and Limits. *Innovations* 3, 119–147.

SCB (1921), (1940), (1950), (1955), (1960), (1968), (1970). *Sveriges officiella statistik, Allmän hälso- och sjukvård* [Official statistics of Sweden, General health care].

SCB (1919), (1925), (1948), (1950), (1960), (1970). *Sveriges officiella statistik, Statistisk årsbok*, [Official statistics of Sweden, Statistical yearbook].

SFS 1915:362. Lagen om behörighet att utöva läkarkonsten [Law of qualifications for practice of medicine].

SFS 1960:409. Lag om förbud i vissa fall mot verksamhet på hälso- och sjukvårdens område [Law of prohibition against certain services in the area of health care].

Stolt, C-M. (1997). *Kaos och kunskap. Medicinens historia till år 2000. [Chaos and knowledge. The history of medicine until 2000]*. Lund: Studentlitteratur.

Sundin, J., Hogstedt, C., Lindberg, J., & Moberg, H (Eds.) (2005). *Svenska folkets hälsa i ett historiskt perspektiv* [The health of the Swedish people in a historical perspective]. Statens folkhälsoinstitut.

Uncas, S. (1980). Swedish health legislation: Milestones and reorganisation since 1945. In A. J. Heidenheimer & N. Elvander (Eds.), *The shaping of the Swedish health care system* (pp. 99–119). London: Croon Helm.

Weisz, G. (2003). The emergence of Medical specialization in the nineteenth century. *Bulletin History of Medicine* 77, 536-575. http://dx.doi.org/10.1353/bhm.2003.0150

Weisz, G. (2006). *Divide and conquer - a comparative history of medical specialization.* Oxford: Oxford University Press.

Åmark, K. (2005). *Hundra år av välfärdspolitik. Välfärdsstatens framväxt i Norge och Sverige* [Hundred years of welfare politics. The rise of the Welfare state in Norway and Sweden]. Umeå: Boréa.