HOW THE HISTORY OF MEDICINE CAN CHANGE MEDICINE ITSELF

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Abstract

Cultural and professional training of the physician and health care worker is lacking; teaching programmes often lack historical content and methodology, lack ethical content, sometimes even linguistic, in any case sociological. History can avoid the dangers inherent to science, as a product of man. However, the last Italian University Reform has silently made, the same history of medicine, to slip in the area of specific medical sciences. Means that only physicians can teach this discipline or that it will be always more difficult for who comes from a humanistic training to research about history of medicine. We absolutely need, especially in Italy, a new history, inspired by new criteria, by philosophical principles, to be able to take foreign comparisons. It's why we need to draw the European scientific attention on the Italian University which is too much conditioned. Dangerous situation which risks to damage the quality of science and medicine.

Key words: *history of medicine, philosophy of medicine, Azevedo Maia A., Chirone V.*

1. The Importance of the History and Philosophy of Medicine, for the physicians

"The history of medicine can not be missing in the training of young doctors. No discipline, not even medicine, can have real value (I do not mean to say, however, just practical value) without the knowledge of the process of the scientific thought that brought the discipline to the latest advancements; nor could young people ignore with ingratitude who preceded them in the quest for truth":

With these words, Massimiliano Cardini, a physician and professor of History of medicine, drew attention in the last century to the importance of this discipline, especially for "young doctors" i.e. undergraduates and postgraduates who would then go on to practice; first of all because it would provide them with an ethical conscience through historical knowledge.

Yet, even today, at medical schools, teaching history of medicine is reduced to "suitability"; it uses all-encompassing and therefore sterile curricula. There is still no teaching of ethics in medicine, not in the faculty of medicine. Significantly, at the headquarters of the National Academy of History of Health in Rome, a panel discussion on The history of medicine in the university teaching of Humanities was held on 17 May 2012, attended by teachers of history of medicine themselves, with the aim to deal with and discuss the issues.

But let's step back. Vocational training and post-graduate education of the doctor is divided into continuing education and management training; the first consists of professional development and lifelong learning.

The rapid and continuous expansion of medicine and biomedical knowledge, as well as the continuous growth of both technological and organizational innovations, make increasingly difficult for the individual health operators to keep themselves "up to date and relevant". It is for this purpose that, in all of the countries in the world, programmes of Continuing Medical Education, or CME, were created. They encompass the whole range of organized and supervised training activities, both theoretical and practical, promoted by anyone who desires it, in order to keep the professionalism of the health operators high and at pace with the modern times.

However, cultural training before professional one, of the physician and health care worker, remains lacking; these programmes often lack historical content and methodology, lack of ethical content, sometimes even linguistic, and in all cases sociological.

In Italy, in the last ten years, there have been exceptions. For example, 1 and 2 March 2012, the local health authority of Lecce (in Puglia) organized, in collaboration with the Italian Institute of Bioethics, a CME Course in Applied ethics in health management; but this is not common practice, as most of the doctors, as well as of operators, in twenty years of their career, have never even heard of the Ethics Committee, in some cases even ignoring its existence. Well one can understand how the situation is serious, if not preposterous.

On these issues, to shed light on a system, the operation of which is often ignored by its very own employees in the sector, several initiatives have been organized recently, including a Conference on Medicine in Southern Italy in Acquarica del Capo (Lecce), on 3 March 2012; an event truly unique, because it was attended not only by medical historians, experts on the subject etc., but also doctors, lawyers and politicians. A conference all inspired by the continuous and persistent tension between Science and Philosophy, by the necessity of a profound dialogue between medicine and social and health legislation, medicine and life. One of the themes was indeed the Usefulness of the history of medicine today, in response to bioethical issues and specifically health. Debate which was attended, among others, also by the former medical director of the local health authority of Lecce, who recounted his experience on the functioning of the Ethics Committees (EC).

Equally unique initiative which has witnessed the implementation of the conference Which Ethics for Physicians? in the First Centenary of the death of the Portuguese doctor Antonio Maia, celebrated in Acquarica del Capo on 14 December 2012. A conference that has seen, on this occasion, the active and synergistic participation of politicians, doctors, bioethicists and historians of medicine.

The History of Medicine and Bioethics or Medical Ethics belong to the same subject area; they are not separate, because making medical history, or the history of something in general, has always "ethical" motivations.

Moreover, if nature and society are none other than two complementary aspects of a single human world, it is true, according to historians, that it is often forgotten that medical knowledge is in one way scientific (i.e. chemical, biological etc.), but also humanistic, in the anthropological sense. Therefore, the history of scientific thought, and thus medical, is needed that is not the history of institutions or scientific discoveries. A "biological" history of science, and even more of medicine, is an utopian project. You can make history instead of doctors, of their thinking. A history of "global" medicine, analytical and succinct together, "calibrated on modern times", because one of its primary tasks is to "blame or agree to the present…to continue or to change it". Thus, modern history of medicine is also the prehistory of our future.

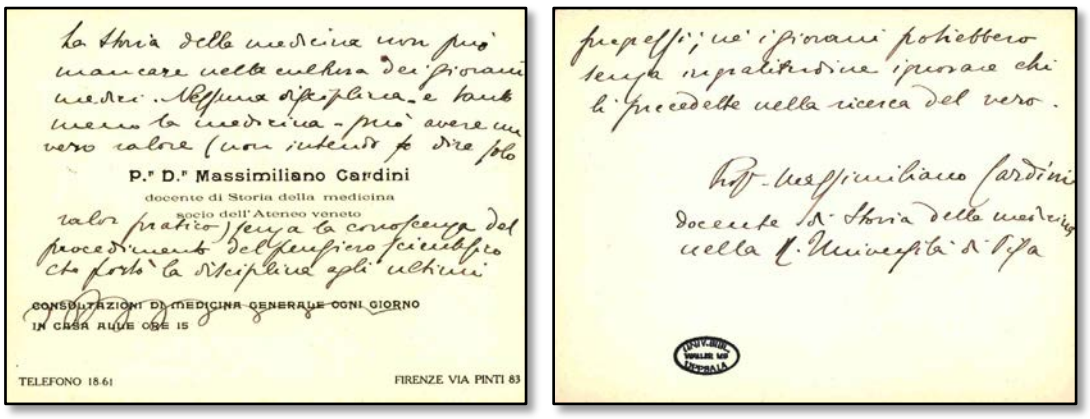


Fig. 1 Remarks on business card, Massimiliano Cardini (XX cent.)

"Waller" Coll. - Uppsala, Sweden

2. The exceptional scapegoat offered by the History of Forensic Medicine in Italy

Who's responsible for the history of (forensic) medicine?

The first day of study dedicated to the history of forensic medicine was held on 21 May 1983. Four years later, introducing the *Acts*, Cosimo Damiano Fonseca expressed himself like this: "An industry, that of Forensic Medicine, particularly committed to re-found areas of this discipline historically"[1]. Forensic scientists who make the history of forensic medicine. Moreover, the last Italian university reform has silently made the same history of medicine to slip in the area of specific medical sciences. It is a somewhat "old" controversy: "The accusation directed at medical examiners about their lack of cultural and historical training in dealing with the origins and development of their discipline may offer securities and grounds of jurisdiction"[2]; the same "securities and grounds" that even today the "historians-physicians" usually oppose in reference to the more general history of medicine.

Although very current, the controversy of which Clemente Puccini talks about in his *Introduction to the study of the history of forensic medicine*, has today a hint of "old": "The titles of legitimacy emerge quite clearly from the fact that even today we have no certainty of when and how this branch of medical knowledge has arisen, that is, when and how the transfusion of medical knowledge occurred in the field of law. The grounds of authority are due more to the medical examiner than the pure historian, since the latter, although they have a specific historiographical background and a greater ability in the identification of the sources, however, is lacking in the medical and legal concepts that are essential for the interpretation and exploitation of such data sources in a consistent and correct to the purpose of historical research in this field of study"[3]. The "old" is the belief, on the part of physicians, sometimes the result of inadequate historical training, sometimes of ideologism (naive as excludible by the mere adoption of a historical perspective), that such a thing as a "pure historian" or rather "pure and simple history" exists, all-encompassing, all-knowing, all-describing. Neither historical research, as Puccini would like, is summed up in the collection of sources, nor does the historian have an "additional" greater *capacity* to find them; maybe just the diligence and the scientific method appropriate. Each field of history has its own rules, its literature, and its methods. And a "Discourse on Method" should be done, stating that history of medicine and of law, in this case, deserve to be guided by objective scientific criteria. It can not be said objectively scientific a study that claims to trace forms of "forensic medicine" in the Sumerian civilization - as well as has been done; a study that pretends, already in shortage of Italian sources at our disposal, to discuss about the Chinese forensic medicine. It can not be said scientific a study that confuses what really "forensic" means, at a particular time, in a specific space.

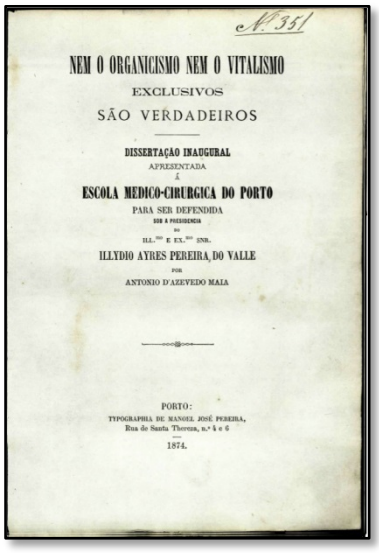
The "philological-linguistic fault" cleverly highlighted by Luigi Bulferetti in his *Closing remarks* in the same *Acts* (almost placed in antithesis to Puccini) is typical: "An expression such as 'forensic medicine' conceived structurally or systematically according to the today's customs without concern for its historicizing, connected with more or less equivalent names taken one after another, so that has become synonymous for some people [...] of 'political medicine' understood as 'public' or 'social medicine'"[4]. In other words, Bulferetti himself, also a doctor, complains of the rough use of a terminology that no one has bothered to define, for what applies in this context, the history of forensic medicine. And is it not the same mistake that Puccini believes that historians do, being not able to dominate the specific technical terminology as the subject would be for them so unknown? And is not the history also a scientific discipline? Puccini falls in this misunderstanding and with him all the others who aspire to be historians, believing that it is sufficient to have a cultural background to

[1] Cosimo D. Fonseca (ed. by), *La storia della medicina legale. Ricerche e problemi* [The history of forensic medicine. Research and problems] *Atti della Giornata di Studio (Reggio Emilia, 21 maggio 1983)*, Galatina, Congedo, 1987: 7.
[2] C. Puccini, *Introduzione allo studio della Storia della medicina legale* [Introduction to the study of the History of forensic medicine], in C. D. Fonseca, *La storia della medicina legale etc. quot.*: 12.
[3] *Ib.*
[4] See L. Bulferetti, *Intervento conclusivo* [Concluding speech], in C. D. Fonseca (ed. by), *La storia della medicina legale etc. quot.*: 143.

address historical research; a history that can not be conceived as a fantastic tale, with no arguments (scientifically valid and accompanied by a system worthy of sources, data etc.) of something. Nevertheless, in the spirit of Bulferetti, as in that one of a few medical historians of modern times, there is the hope of "preserve with all care like a tenuous sapling" the "fledgling history of forensic medicine" from all those ideologies (or maybe just from too idealising historians), from which we have not freed ourselves yet today.[5]

3. Elements of "Philosophy of Medicine" in Azevedo Maia (1851 - 1912) and insights

Antonio D'Azevedo Maia (1851 - 1912) was a clinical physician and professor. Graduated in Medicine at the age of 23, from 1875 he held a Course of General Pathology for Forensic Medicine in the Surgery-Medical School of Porto. When 26, he appears among the "lentes substitutos" of the "corpo cathedratico". In 1877 he married the aristocrat Norberta Cândida Pereira de Sousa, who will give him a son the next year, Adriano, subsequently a brilliant politician. In 1888 he performs the first oophorectomy for fibrosarcoma in the medical history of Portugal. In 1880, he is Full Professor of Physiology; in 1891 of Medical Clinics. In 1908, he appears among the "lentes jubilados" for the Medical Department. In 1897 he is among the constituent members of the Medicine and Surgery Society of Porto. Maia is the author of a "Dissertação Inaugural" (Porto, 1874), titled *Nem o organicismo nem o vitalismo exclusivos são verdadeiros*, a work of great scientific interest, for the worthiness of the theories argued and their "modernity". There, two "medical systems" are covered: *organicism* and *vitalism*, to which Maia reproaches the assumptions of exclusivity and truth. Further, he writes of an "organic evolution of medicine in the context of philosophy", considering "each system as the reflection of a dominant philosophical feature in a given epoch"; investigating on the "legitimacy of medical philosophy". So, the "golden dream of all systematics", "to simplify medicine" to "reduce it" to an "exact science", would be "to deny the scientific existence of biology". Presented here is the work of Maia, for the first time translated into Italian, aiming to present an original author to the scientific community, making "a history of physicians, for physicians": a biographical history of medicine, providing preferred perspectives to study the scientific ideology of medical systems and of "medical science", in general.


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NEM O ORGANICISMO NEM O VITALISMO
EXCLUSIVOS
SÃO VERDADEIROS

DISSERTAÇÃO INAUGURAL
APRESENTADA
Á
ESCOLA MEDICO-CIRURGICA DO PORTO
PARA SER DEFENDIDA
SOB A PRESIDENCIA
DO
ILL.mo E EX.mo SNR.
ILLYDIO AYRES PEREIRA DO VALLE
POR
ANTONIO D'AZEVEDO MAIA

PORTO:
TYPOGRAPHIA DE MANOEL JOSÉ PEREIRA,
Rua de Santa Thereza, n.os 4 e 6
1874.

Fig. 2 Antonio D'Azevedo Maia 1874,

Nem o organicismo nem o vitalismo exclusivos são verdadeiros, Pereira, Porto

[5] See *Id.*: 144-5.

4. Elements of "Bioethics" in Vincenzo Chirone (1847-1908) and thoughts

Vincenzo Chirone graduated as "best student" in 1872 in medicine and surgery. Associate of the major Italian medical academies, as well as the *Societé d'hygiène* in Paris, travelled widely and contributed significantly to advances in medicine and experimental pharmacology in relation to the anatomy and the physiological knowledge of the time.

After graduating, he won a contest that allowed him to specialize further in pharmacology while working in the laboratories of the Faculty. The following year, 1874, he left for Paris, where he completed his training, performing the same task in the laboratory of Claude Bernard. The French experience, which lasted about two years before his return to Naples, must have influenced him deeply. On this point the few biographical profiles of Chirone that currently exist are not clear, nor a thorough analysis of his works was ever made.

Bernard was given a position of leadership at the Museum of Natural History in Paris, founded in 1793, which saw a period of great prosperity in the nineteenth century. This happened in 1868 when, having left the Sorbonne, Bernard accepted the request of Napoleon III who, after meeting him in 1864, wanted him to lead a Laboratory at the Museum. It is not excluded that it was Semmola, Chirone's mentor, who pointed him towards Paris, we can only speculate about the relationship that Chirone may or may not have had, more or less directly, with the same Claude Bernard, who died four years later, in 1878. However, It's this laboratory, commissioned by Napoleon III himself, to be led by Bernard, to which - consciously or unconsciously - the first biographers of Chirone refer to. Information that we today can check with greater precision.

For the works of Chirone, there is not an accurate bibliography yet. Early biographers mention a few, starting with a short essay that he wrote in 1875, in French: *Mécanisme de l'action de la quinine sur la circulation*. The full title of this work is *Mécanisme de l'action de la quinine sur la circulation. Recherches expérimentales exécutées au Muséum d'histoire naturelle par le Dr. Vincent Chirone*, paper that was published in Paris by the renowned typographer Masson in 1875 in a volume of just 68 pages that collected the articles written by the same Chirone for the *Weekly journal of medicine and surgery*. It is here that Chirone thanks Bernard for having made available his laboratory and everything that could serve for his research. Chirone says he is grateful and honoured in having been able to appreciate Bernard's "quality of heart", "qualities worthy of his immense knowledge and his high intelligence". It is a fact that brings the information never before detected and meaningful and important. Chirone has never been given any real recognition, mainly due to ignorance of his own history, which we want to bring to light, hoping to trigger the curiosity and enthusiasm of readers who want to further research.

The *Manual of medical and therapeutic materials* (1871) is undoubtedly his greatest work; it shows Chirone belongs on the national and international pharmacological research scene of the nineteenth century.

The experimental pharmacology was born in those years in close relation with the progress of physiology and gave birth to what, at the same time, would become the forensic toxicology in support of the growing modern forensic sciences.

In this *Manual*, for example, we find for each element the entry "Anatomical evidence" or "Autopsy", where the author refers to obvious signs of poisoning and therefore distinguishes its various types, so that they are useful to the "medical practice".

Even before the founding of the Institutes of Forensic Medicine, the toxicological studies on corpses were commissioned to the chemical laboratories and university academics. Similarly, the inclusion of this information in the medical and pharmacological manuals and treatises, was necessary to give to all doctors at least a basic toxicological knowledge, in a period in which the coroner had not (and still today does not have) a specific background.

Particularly interesting is the reflections that Chirone did on drug testing, or the administration of the preparations in the experimental stage to laboratory rodents or animals:

"Therapeutic agents, before being brought to hospital and be used for the treatment of diseases, are brought to the laboratory for experiments on animals and to see what changes determine to the normal functioning of the organism. Medical Materials in other words, have taken an experimental, physiological and experience orientation today precedes clinical observation. Some educated priests and accustomed to regard animals as something completely different from the man, believed, and unfortunately there are some who still believe that the new direction would lead to nothing, believing that the action on the animals was different from that on man, as if the laws on life were different! Certainly, experiments made on humans is preferable to what is done on animals, and already the dedication of many scientists got to do experiment on themselves also with poisons; while on the other hand, cases of poisoning, which unfortunately come true every day, they brought their contribution to science, perhaps we can uncover human veins and arteries, nerves cut or destroy the nerve centers, and so forth? It is essential, however, to know what a medicament is capable of, before adventuring in the treatment of diseases...".

We believe that Vincenzo Chirone and his works undoubtedly deserve to be researched further. His works were many, as many as 19, according to the census that the publisher Pasquale made before drafting a bibliography of its author, in 1880; to which it must be added at least the *Critical treaty on new medicines* (1900). It is unfair, as well as historically unacceptable, that one neglects the study of a scientist, a thinker, which led beyond the Alps, to Paris, the knowledge learned in Italy and to Italy again, on his return, what he had learned in Paris with a very important production of monographs and articles, simply because "provincial", only because it is considered, on the basis of doubt criteria like a "minor" in the history of medicine. And the same fate befell, in truth, many doctors in Puglia. In 2013, 105 years after his death, we wanted to celebrate him with a contribution to a collection of studies entitled *Illustrious Doctors of the Province of Lecce*.

Conclusions

In 2007 we started a project of humanization of medicine and science that has given us the opportunity to research many authors and different historical periods, from Nicola Andria to Azevedo Maia and Vincenzo Chirone and so on, from the Neapolitan Revolution of 1799 to the end of the Portuguese Regeneration to the ferment again in Italy at the end of XIX century etc., in order, through outreach activities, information and promotion of the history of medicine, in all its forms and at all levels, to make people really understand the strong interdependence relationship which exists between the progress of a science and the social, political, ethical facts, the reasons of the humanity itself. It should be understood, in fact, that a sufficiently critical look and sometimes just a simple oriented method, in the history of medicine, as history of science, such as general history, it can avoid the dangers inherent to science itself, as a product of man. We need a new history of medicine, a new history of science, inspired by new criteria, animated by philosophical principles, able to hold its own against foreign comparisons, to rejuvenate itself, to finally be useful, the protagonist of change.

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