

tare che stiano diversamente, come può la medicina - come lo poteva la medicina ippocratica - prendere la distanza prospettica necessaria per rivelarsi *altra* dal suo oggetto?

Franco Voltaggio

GRMEK Mirko D., *Le legs de Claude Bernard [The heritage of Claude Bernard]*. Fayard, Paris, 1997.

This book is an important step of a series of studies that Grmek has developed for about thirty years, when he selected the topic of the *experimental medicine* as tool to study the epistemological passage from a nosological view of medicine to a *naturalistic* view, from ancient time to the more recent developments of medicine, e.g. genetics, molecular medicine etc., where history of medicine is more history of the evolution of the ideas and social events more than the celebration of a single personage; thus, Claude Bernard represents the turning point in the development of medicine from experienced-based to experiment-derived. The critical reasoning of Grmek is based on the analysis of the original texts and of the context of the scientific debate; this book is much more than the summary of a series of papers published on the argument, because it represents a multi-step way for an exposition and discussion of changes, relationships, oppositions occurred in the development of medicine in the years near the middle of the 19th Century, in which physical and chemical sciences become the foundation of physiology, so that the *vitalism* does not explain the secrets of life. In the same year in which Cl. Bernard is appointed as acting professor at the *Collège de France* (1848) as pupil and successor of François Magendie, it is founded the *Société de Biologie* with the 35 years-old Bernard vice-president. The passage of the centrality of medicine from the clinics alone (Magendie took Bernard as a resident at the *Hotel Dieu*) to the laboratory is driven by Magendie and Bernard, who begin a series of studies on the new field of *experimental physiology*, which points to understand the pathophysiology of clinical events, from the analysis of single observations (experiment-derived) to the ability to reach a synthesis to im-

prove general knowledges but useful also for clinical purposes. Grmek describes the researches of Bernard on the pancreas and the liver: an autopsy of a rabbit disclosed the role of the secretions of the pancreas in the digestion (fat molecules broken down into fatty acids and glycerin), there is a glycogenic function in the liver; vasomotor nerves regulate the blood and urinary excretions is regulated by the central nervous system. The positive impact of the biomedical sciences on both medicine and expectations of the society is the *heritage* of Claude Bernard, Grmek says: in medicine, a hypothesis should be either confirmed or refuted by the experimental results. When he died (1878) his heritage was generally recognized, so that he has a public funeral, like a State-man.

Bernard breaks the attitude of medicine to the theorization: *primum experiri deinde philosophari* is the new epistemological rule and the *determinism* of biomedical events (i.e. under identical conditions the phenomena will be identical) is the stone of both natural sciences and medicine, bridge between the materialism and the vitalism. Under this law, the physico-chemical fixity of the internal humours and environment (*milieu intérieur*), which is *determined*, is related to the influence of external environment (*milieu extérieur*): the degrees of the level of livings organisms is going up from a *latent* fully conditioned life (dependent from the external environment) to the higher condition of *freedom* of organisms which may self-conduct or influence or modify also the environment (freedom is the *quid proprium* of life, a concept which we may find in the *élan vital* of the *process* philosophy of Henri Bergson). On the same time, the *need-rule* is the condition for experimentation: it is a light-motive of many epistemological revolutions in medicine, as demonstrated by the fact that a similar concept may be found as principle for the experienced-based Hippocratic medicine either as *logos-ananke* - Leucippus D-K 67B2 - or denial of spontaneity - *automaton* - of medical events (*De arte* 6).

The presupposition of the same general laws of livings either healthy or sick represents the basis of experimentation, and the studies on the pathophysiology of liver, on *nervous* diabetes, etc. represent a way to understand clinical physiology so that a ra-

tional approach to therapeutic procedures may be practiced. Grmek remembers that this approach of Bernard is developed during a period of great changes, between Pasteur and Virchow: the passage from the organic environment and the centrality of the cell requires the analysis of the relationship between no-livings molecules and living organisms, because they are composed by organic molecules. On this scenary the *chemist* Pasteur is in a well defined position against any theory of spontaneous generation; Bernard is in the same position with some doubt, as for the case of no-cellular organic pathogens probably because he is searching a general law from no-livings to livings (at that time there is any evidence of viruses). On this speculative problem we may remember Bergson and the problem of the relationship between mind and body (*Matière et mémoire: essai sur la relation du corps à l'esprit*, 1896): Grmek has the ability to summarize the experimental approach of Bernard as general method for any science and quotes Bergson to remember that the *summa* of his epistemological view is done by the work *Introduction à l'étude de la médecine expérimentale* (1862-63), which is a mile-stone for the experimental science, like in the 17th and 18th centuries was the book *Discours de la méthode* de Descartes. From the work of Grmek Cl. Bernard stands up in his complexity as scientist, physician and epistemologist, overall in his search of the scientific true, *homme de vérité*, according to Jean Rostand.

Luigi Frati

JACQUART Danielle (Ed.), *Les voies de la science grecque* (Études sur la transmission des textes de l'Antiquité au dix-neuvième siècle). Droz, Genève, 1997.

C'è un filone di studi particolarmente interessante nella filologia e storia della scienza, costituito dalla trasmissione dei testi classici - greci e latini, in particolare attraverso le lingue del vicino e medio-oriente. Si tratta di una linea di ricerche che richiede competenze diverse: storiche e filologiche per l'analisi

si testuale, e poi conoscenze scientifiche dell'ambiente alessandrino, del medio-evo europeo e di quello arabo, degli intrecci tra filosofia e scienza agli albori del rinascimento, etc. Talvolta vi è una continuità di trasmissione, come per certe opere di Galeno o di Aristotele, talaltra vi sono lunghe pause - anche di secoli - ed ancora sappiamo che certe forme intermedie di trasmissione si sono perse (come per le opere mediche in siriano), mentre il ritrovamento di certi inediti (i *Procedimenti anatomici* di Galeno in versione araba, con una parte perduta in greco; gli *Elementi* di Euclide in versione ebraica) ha permesso il recupero di alcuni originali persi o contribuito a gettare nuove basi di analisi critica dei testi. Tra i gruppi attivi in questo tipo di ricerche si distingue per valore e continuità l'équipe francese attiva su *Transmission des savoirs scientifiques de l'Antiquité et du Moyen Age*, promossa dalla École pratique des Hautes Études, ove è direttrice di studi Danielle Jacquart, curatrice del volume. Come succede per i volumi collattanei, gli argomenti trattati sono eterogenei, ma nondimeno interessanti, dalla trasmissione del Timeo nel mondo latino (B. Bakhouché) o degli Elementi di Euclide nel mondo ebraico, a quella delle teorie medicali da Alessandria al mondo arabo (N. Palmieri), anche attraverso le traduzioni di Hunain (Fr. Michéau). Allorché i fermenti scientifico-letterari stimolano in Occidente traduzioni ed edizioni critiche dei testi (D. Jacquart, J.-M. Mandosio, B. Mondrain), mentre Danielle Gourevitch approfondisce le fasi della I edizione del manoscritto arabo dell'opera di Galeno *De Adm. Anat.* comprendente la parte greca perduta e mette in evidenza, attraverso la corrispondenza tra Ch. Daremberg e William Greenhill, che vi era un primo progetto di edizione critica in comune tra i due studiosi, poi appaiono Dugat e Leclerc e se edizione inglese c'è stata essa fu in latino! Attraverso questi saggi emerge in ogni caso che si tratta di un settore tra i più vivi nel mettere in relazione la migliore tradizione di analisi filologica e testuale con l'approfondimento dei passaggi della trasmissione ed elaborazione del sapere scientifico.

Luciana R. Angeletti