FULGENCE RAYMOND, THE SUCCESSOR OF CHARCOT*

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THE death of a recognized national leader immediately evokes interest and discussion with regard to his successor. Similar situations often occur in academic life. The sudden death of Jean-Martin Charcot in August 1893[1] made it necessary for the Faculty of Medicine in Paris to seek a replacement for the professorship at the Salpêtrière. The immediate successor of Charcot, Fulgence Raymond, is not generally known to neurologists nowadays and one might wonder why he was selected at all. In retrospect it is possible to see some of the difficulties of replacing Charcot. A review of the candidates for his chair allows us to gain perspective into the state of French neurology at the time and to recall some prominent neurologists in Paris who vied for the position.

Charcot's death was a loss not only for French neurology but for the entire medical world. Charcot had been known internationally as a superior clinical investigator and teacher. His contributions to the classification of neurologic disease, and to neuropathology and neuroanatomy, were well known also. In his later years he had devoted himself to investigations and treatment of psychoneurosis and hysteria; his work on these problems had aroused intense controversy.[2, 3] Ultimately, many of his students elaborated or developed theories related to these illnesses.[4-6] Charcot trained many excellent neurologists whose contributions, though perhaps not as lustrous as those of their mentor, remain part of our heritage in clinical neurology.

In the early 1860s, when he was named physician at the Salpêtrière, Charcot assumed responsibility for more than 5,000 women patients.

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POSSIBLE CANDIDATES FOR THE CHAIR OF CHARCOT IN 1893

		Agrégé	*Professor at the Salpêtrière*
J. Babinski	(1857-1932)	*	
P. Marie	(1853-1940)	1889	1918
E. Brissaud	(1852-1909)	1886	†
J. Dejerine	(1849-1917)	1886	1910
L. Landouzy	(1845-1917)	1880	
F. Raymond	(1844-1910)	1880	1894

*Failed in his *agrégation* examination in 1892.
†Acting chief, 1893.

Many were merely elderly and infirm. Others had primary neurologic illness and several hundred had psychiatric disease.

In the years which followed, in the physical setting of the former arsenal and prison. Charcot and his staff began a laborious triage of this diverse population and created what today we would call a neurologic institute. Charcot added laboratory facilities, a medical photographic unit, a unit for electrotherapy, an ophthalmology service, and an outpatient clinic.[7] Together with Pierre Janet, he began what may be considered one of the first medical psychology units.

In 1882 the French government created a professorship at the Salpêtrière in diseases of the nervous system; Charcot was appointed to the chair.

He was described by some as aloof, remote,[8] and tending to view his patients as a captive group capable of serving his interests in clinical investigation.[9] Freud, who spent several months at the Salpêtrière in 1885 and 1886, gave a more sympathetic descripion of Charcot.[10] Freud had come to Paris to do neuropathological research on degenerative changes in the motor system and to attend lectures at hospitals. Lacking laboratory facilities and fascinated by the clinical skills of Charcot, he was led into his life's work in psychologic disease.[10]

The candidates for Charcot's chair were a small but outstanding group of French physicians (see accompanying table). The term physician is more appropriate than neurologist, since at that time the employment category of "neurologist" did not exist in the system of ex-

aminations for professorial tenure. Those French physicians who turned to neurology entered it after long training in general medicine and after passing the necessary competitive examinations.

The names in the table represent the survivors of the highly selective and competitive centralized system of examinations (*agrégations*) directed by the French government. Other tenured professors in medicine were included in the Faculty of Medicine in Paris at that time, but I have omitted them because of their lack of interest in neurology at the time of Charcot's death. It can be seen that later successors to Charcot, after Raymond, were Jules Dejerine and Pierre Marie.

According to custom, the faculty elected the successor and approval was then given by the French government. There is no precise way to determine what factors were involved in the election of 1893-1894. We can no more be certain about the events of the appointment of Raymond than we can about possible intramural intrigues underlying the selection of professors at any university.

I have attempted to review the work and qualifications of other candidates and some of the realities that may have been involved in their selection or rejection. Information available about the lives of each of these men is far from complete and is probably biased, since most of the biographical sketches or biographies have been written by former students or interns and hence for the most part are favorable. A review nevertheless offers information on the life, work, and personality of the candidates, about their activities in the medical world, and about the social setting of the time.

Joseph Babinski, the "preferred pupil" of Charcot,[11] is linked with the tradition of the Salpêtrière. Wartenberg,[12] who wrote the biographic sketch of Babinski in *The Founders of Neurology*, states that Babinski would have succeeded to Charcot's chair had he passed the *agrégation* examination. This perhaps represents bias, since Wartenberg was a pupil of Babinski in the 1920s. The failure of Babinski to succeed in the *agrégation* competition made it impossible for him to secure a tenured professorial position and eliminated him from any possibility of succeeding Charcot.

Pierre Marie had secured his *agrégation* appointment four years before the death of Charcot and was probably too young to succeed his former teacher. Nevertheless, he is famous as an excellent clinical neurologist. Marie described progressive muscular dystrophy and was

the first to use the terms acromegaly and hypertrophic pulmonary osteoarthropathy. He also classified hereditary cerebellar ataxia as a variant of Friedreich's ataxia. Roussy, one of his biographers, states that Marie had many of the characteristics of Charcot and depicts him as authoritative, uncompromising and proud, enjoying the development of new ideas but also imposing them on others.[13] An example of his contentiousness was his attack on Paul Broca entitled The Third Left Frontal Convolution Has No Specific Role in the Function of Language.[14] Marie succeeded to the professorship at the Salpêtrière after the death of Dejerine in 1917. By that time he was in his 60s and his most productive years had passed.

Louis Landouzy merits consideration. A contemporary of Raymond, he achieved his *agrégation* appointment in the same year. Landouzy had written his medical thesis on Contributions to the Study of Convulsions and Paralyses Related to Frontal Parietal Meningoencephalitis.[15] In his thesis he focused on seizures resulting from tuberculous meningitis. His interest in tuberculosis eventually led him to specialize in that disease. At the time of Charcot's death, Landouzy had been concerned with the diverse and social aspects of tuberculosis. Despite advances in bacteriology made during this period, specific therapy was 50 years in the future. In Paris in the 1890s about 2,000 babies died each year of tuberculosis. Landouzy had been awarded the professorship of materia medica and therapeutics at the Laennec Hospital. Ultimately he became dean of the Faculty of Medicine. The direction of Landouzy's medical career and his appointment in 1893[16] would have lessened his potential for consideration as a successor of Charcot.

Another strong and forceful personality was Jules Dejerine, who came to Paris in 1871 from modest surroundings in Geneva and achieved success by hard work. Although he is reported to have said: "In Paris you always can advance yourself by work and enthusiasm. You don't need any strings. You are the product of your work," he was realistic about the facts of academic life and the need for favors and support.[17] In 1886 he competed for the *agrégation*. Not of the school of Charcot, he learned that Charcot was disinclined to favor him in this competition.[18] A confrontation ensued and Dejerine was able to convince Charcot that he merited consideration and approval.[19] E. Gauckler, a biographer of Dejerine, states that after the death of Charcot many members of the faculty assured Dejerine of their support for Charcot's

Fig. 1. Edouard Brissaud. Reproduced by permission from *Prog. Méd.* (3d Ser.) *10*:27, 1899.

chair, and that his failure to secure immediate succession embittered him. Gauckler holds that on the strength of Dejerine's publications he should have been the immediate successor in 1894 and should not have been compelled to wait until the death of Raymond some 17 years later.[19] Dejerine's incisive and sarcastic style often produced exciting debates at the Society of Neurology. There is a record of at least one polemic in the medical literature in which he disagreed with Marie about a paper the latter had written. Dejerine claimed his scientific honor and good faith had been questioned and he demanded a retraction or a duel.[20] It remained for Edouard Brissaud to resolve the disagreement.

Brissaud (Figure 1) and Raymond provide an interesting contrast

because of their backgrounds and life styles. Brissaud, several years younger than Raymond, had been brought up in a highly educated family which stressed education and cultivated the arts.[21] Raymond was the son of a farmer. A medical heritage had long existed in Brissaud's family and was lacking in Raymond's. Upon Charcot's death Brissaud served as acting chief of the unit until Raymond was appointed.

Brissaud had been stimulated by Charcot, and had done his early work in neurology and neuropathology.[21] In 1894 he concluded that Parkinson's disease was due to some anatomic disorganization in the subthalamic or peduncular area and he disagreed with the hypothesis that Parkinson's disease reflected muscular disease or psychoneurosis. He reached his decision as a result of neuropathologic findings in a patient who had a tuberculoma of the substantia nigra and had had a Parkinsonian tremor.[22]

Brissaud's interests extended beyond neurology. Drawn to psychiatry, he achieved a high reputation in legal medicine and became skilled in coping with problems secondary to occupational injury. Brissaud and Marie founded the *Revue Neurologique*. In addition to writing a textbook of neuroanatomy, he illustrated the volume himself. His biographers describe him as intelligent, outspoken, and fiercely honest. Although a member of the faculty of medicine he did not hesitate to criticize it. He enjoyed popularity among his students as a teacher and heightened their enthusiasm by not wearing the top hat which at that period was a symbol of professorial authority.[23]

Brissaud did not shrink from supporting or lending his prestige to groups whose activities he considered worthwhile. Concerned about the growing separation of neurology and psychiatry, he worked to bring these two groups together and in 1893 was able to transform the Congress of Alienists into the Congress of Alienists and Neurologists.[21] Brissaud also supported the private School of Psychology in Paris. Its driving force was E. Bérillon, who described Brissaud as a rarity in their time, a professor in fact as well as title.[24] Bérillon had personal reasons for the accolade. For 20 years he had pursued a vigorous campaign against the *agrégation* system. In 1910 Bérillon, because of alleged remarks against the *agrégation* jury and its president, was eliminated as candidate after the competition had commenced.[25] Brissaud, a product of this competition, supported the school of psychology and its activities despite these attacks by its leader.

M. le Pr F. RAYMOND,

Fig. 2. Fulgence Raymond. Reproduced by permission from *Prog. Méd.* (2d Ser.) *20:* 317, 1894.

An additional dimension of Brissaud is made clear in his address at the opening of the School of Psychology in Paris in 1908. His theme on that occasion dealt with political tyranny and repression, his discourse being devoted to the uprisings and suppressions which were then taking place in Turkey.[26] Described as a "neurologist's neurologist,"[22] he appears to have possessed much of the strength and force and many of the widespread interests of Charcot. More than any other candidate, he participated in social actions.

Raymond (Figure 2), in contrast, was born in a small town. His parents had simple ambitions and hoped that their son would live out his life on the farm as his father had done. Raymond's initial schooling was in his village. When he showed ability as a scholar, his family allowed him, their only child, to enter the veterinary school at Alfort. He then proceeded to join the army rather than practice in his com-

munity. Later, by competitive examination, he qualified as chief of anatomy and physiology at the veterinary school where he had trained.[27]

By the time he was 23 he was married. He was slightly older than applicants for medical school nowadays and much older than most candidates of that time. Disenchanted with veterinary medicine, he decided to apply to medical school. Lacking the necessary premedical qualifications, he proceeded to study Latin, Greek, mathematics, and philosophy. By the time he entered the faculty of medicine he had a wife, a child, little money, and no connections. His biographers comment on his amiability and prodigious memory as favorably impressing his teachers.[27] During his days as an extern, along with other physicians in Paris, he lived through the bombardments during the days of the Paris Commune. His wife dying soon afterward, he sent his infant daughter to be brought up by his in-laws. He then competed successfully for the internship and, despite the crises in his personal life, achieved a brilliant academic record. In 10 years he was able to switch from veterinarian to professor *agrégé* at the Faculty of Medicine.

Raymond's medical writings number in the hundreds and range from works of general medicine to publications which touch on every aspect of neurology. Several of Raymond's papers show that there are probably few new neurologic diseases and that many of the clinical entities described during the 20th century had been observed 100 years earlier. One of his early major contributions was the demonstration that tabes and general paresis are clinical varieties of luetic origin rather than separate entities.[27] He became interested in hereditary and familial disease and spoke on the subject in 1908 when he was awarded an honorary degree at Oxford.[28]

One of his most interesting papers from the standpoint of medical history reviews the organization of medical schools in Russia in the 19th century, as an introduction to a study of diseases of the nervous system in that country. The interesting and valuable document deals with the system of medical education that existed in Russia in the late 1800s and with the state of neurologic research there.[29]

Whether Raymond had been invited to visit Russia for purposes of an external review or whether his visit was in part a diplomatic cultural exchange is not known; however, during the era which followed the Franco-Prussian War Russia was one of France's few allies.

EPILEPSIA

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Fig. 3. Editorial staff of *Epilepsia*. Reproduced by permission from *Epilepsia 1*:1909.

Raymond was well aware of pseudotumor cerebri and the need to make a precise diagnosis in view of the benign course, yet the fact that many of the patients became blind led him to advise surgical decompression when necessary.[30]

In some of his papers we see the antecedents of the Guillain-Barré syndrome, described during World War I by G. Guillain, J.-A. Barré, and A. Strohl. Raymond was aware that ascending paralysis could occur after an infectious illness or in the setting of some focal abdominal lesion such as appendicitis.[31]

He made no primary claim to priority in describing the remote effects of carcinoma on the nervous system. He knew the work of Auché,[32] who had described patients who had gastrointestinal, ovarian, and uterine neoplasms and who developed neuropathies which could not be explained either by cachexia or by neoplastic infiltration of nerves or plexuses.

To inherit the position of professor of nervous diseases at the Salpêtrière was to assume the task of diagnosing and treating a large number of patients who had emotional disorders. Like his predecessor, Raymond continued to support the work of Janet; together they published works on hysteria, obsessions, and fixed ideations.[6] His position as an editor of *Epilepsia* when it was first published is an indication of his reputation in neurology (Figure 3).

In contrast to some of the other neurologists previously described, Raymond was a friendly man, inclined to compromise rather than argue. His early background may have made him modest and conciliatory rather than aggressive. Raymond had few if any enemies. In his teaching he seemed ill at ease and under great tension. He was unable to categorize and systematize diseases as forcefully as Charcot. A biographer describes him as so impartial in the presentation of clinical data and theoretical considerations that many in his audience had difficulty understanding his conclusions.[33]

His life was one of unending work, devoted almost exclusively to medical teaching and to the care of patients; this contrasts with the diverse activities of Brissaud. In the last year of his life, despite failing health, he continued to fulfill his academic obligations and served on the jury of the stormy *agrégation* competition of 1910.

Raymond appears to have been the most benign and least controversial of the candidates available to succeed Charcot. It is possible

that the faculty was interested in a tractable and unassertive figure after the death of Charcot. Although his appointment may have been based solely on seniority, Raymond stated that Charcot had indicated that he hoped Raymond would succeed him.[34] The faculty may have wanted to lessen the dynamic, productive ferment instituted by Charcot which, in comparison, may have made the rest of the medical school appear unproductive. They may have wanted a less charismatic successor. Beside the other candidates Raymond appears less aggressive and imaginative. In recent times his image has become even fainter. The biographic sketch which appeared in the first edition of *The Founders of Neurology* in 1953[35] was omitted from the edition of 1970.

It is doubtful that any of the possible candidates would have maintained Charcot's powerful energetic leadership. His immediate successor was destined to be dwarfed by the brilliance of his predecessor. Guillain[36] is correct in stating that Raymond nevertheless merits recognition as one of the foremost clinical neurologists of his time.

Whether or not we shall ever possess all the facts related to the appointment of Raymond, a review of the potential successors of Charcot gives us a glimpse into 19th century French neurology and into the academic and personal qualities of outstanding French neurologists of this period.

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