# THE MAKING OF A FAMOUS NINETEENTH CENTURY NEUROLOGIST: JEAN-MARTIN CHARCOT (1825-1893)

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## ABSTRACT

# THE MAKING OF A FAMOUS NINETEENTH CENTURY NEUROLOGIST: JEAN-MARTIN CHARCOT (1825-1893)

The setting of this thesis is the medical world of Paris in the second half of the nineteenth century. This essay answers the question of how Jean-Martin Charcot became famous. In placing Charcot's career in its historical context, it provides an analysis of the strategies used by him to ensure his status as one of the most famous French physicians of the latter half of the nineteenth century. It presents a study of two important chapters of the history of French academic medicine, placing both in the conceptual framework of the transition between knowledge and power. It discusses the youth and early careers of Charcot and his medical ally Alfred Vulpian (1826-1887). It analyses the increasing influence of the members of the 'Société de Biologie' in the medical world of Paris, suggesting that the Society served as a forum for young ambitious physicians such as Charcot who wanted French medicine to be reformed into a *bona fide* science. It shows that when the take over by the members of the 'Société de Biologie' of the Medical Faculty of Paris was completed by the mid 1870's, conflicting individual aspirations started to surface and cause profound divisions in the previously cohesive group. It analyses how Charcot was able to successfully break ahead of many of his colleagues. It shows Charcot at the zenith of his fame during the 1880's. Finally Charcot's rapid decline in the early 1890's is reviewed. In summary, this thesis analyses how Charcot, due to the successful scientific reform of French medicine, was able to become one of the most famous physicians of the nineteenth century.

# CONTENTS

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# TABLES AND DIAGRAMS

# ILLUSTRATIONS

# INTRODUCTION

This thesis consists of a biographical study of the life and times of Jean-Martin Charcot (1825-1893), one of the most famous French physicians of the nineteenth century. It is not intended to be a psychological biography, but rather a social history with a 'human face'. Charcot will be shown not only as a medical luminary, but as a skilled individual in the art of climbing the social ladder. To use a then popular label, we will present Charcot as a talented medical 'opportunist'. This biographical essay should be seen as an attempt to place the making of a famous physician in its historical context. Charcot, whose motto was *Nihil humanum a me alienum puto* (nothing human can be foreign to me), was able, by riding the tide of the reform of French medicine into a science, to ensure his place in the pantheon of great medical men[1].

The initial question that prompted this research was imparted to me by the now deceased French neurologist Paul Castaigne(1916-1989)[2]. Professor Castaigne held Charcot's chair of neurology at the Medical Faculty of Paris from 1960 to 1985. He suggested to me that a historian could shed some light on the historical division of neurology in Paris into two rival traditions which he labelled as the Charcot and Vulpian traditions. This was to serve as the starting point of extensive research covering the period between 1840 and 1925. As the work progressed, it became clear that during Charcot's lifetime, there were no great frictions between him and his close friend Alfred Vulpian (1826-1887). Therefore, the inceptive question subordinated itself to a more fascinating one, though as you will

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[1]DAUDET: *Devant la douleur*..., 1915, p.242.

[2]CASTAIGNE: Centenaire de la clinique..., *La Revue Neurologique*, 1982, p.882

see in the last chapter, not unrelated to the first . The major question then became: how did Charcot actively ensure his rise to fame? This undoubtedly was a more subtle and complex question. To answer it I will provide an analysis of the hierarchies of the academic and professional medical world of Paris, of national and scientific politics, of the means of diffusion of ideas, and of the way Charcot increased his public visibility.

I am indebted to the work of various contemporary historians for their portrayal of the structure and internal dynamics of medicine and science during the second half of the nineteenth century in France. The superb works of H. Paul and G. Weisz were indispensable for my understanding of the forces at play during this period[3]. The writings of J. Goldstein on the possible links between Charcot's ideas and national politics were also essential to my research[4]. Furthermore, this thesis was inspired by the work of the philosopher-historian Michel Foucault, and J. Léonard who applied some of Foucault's concepts to nineteenth century French medicine[5]. The Foucault 'pendulum' of knowledge-power served as the conceptual underpinning of this analysis. However, my emphasis is somewhat different from the French philosopher's, in that it does not see knowledge as a means to achieve power, but rather suggests that authority or power is derived from the active and successful blending in of the beliefs or knowledge of a few into a more generally shared belief system. This implies that gifted individuals with new ideas and a good understanding of the social structures of their times are able to infiltrate the various social hierarchies. With time, their rise in these hierarchies ensures a better diffusion of their ideas or knowledge and the selection

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[3]PAUL: *From Knowledge to Power...*, 1985. WEISZ: The Politics of Medical Professionalization..., *Journal of Social History*, 1878, pp.1-30; and *The Emergence of Modern Universities...*, 1983.

[4]GOLDSTEIN: *French Psychiatry...*, 1978; The Hysteria Diagnosis..., *Journal of Modern History*, 1982, pp.209-39; and *Console and Classify...*, 1987.

[5]LEONARD: La médicalisation de l'Etat..., *Annales de Bretagne...*, 1979, pp.313-20; and *La médecine entre les savoirs et les pouvoirs...*, 1981.

according to new criteria of what was true knowledge of their subordinates. Inevitably if the enterprise is a fruitful social success, authority or power is achieved as a byproduct of the ability to have caused a shift in the general shared belief system. In other words, individuals are able to create a world with a new shared belief system largely in agreement with their own ideas, therefore ensuring themselves high priest positions in the new order.

This type of analysis is key to an understanding of the two basic historical events reviewed in this thesis. In the first three chapters we will analyse how the members of the 'Société de Biologie' were able to impose their new 'discourse of truth', to borrow Foucault's expression, which consisted in promoting that medicine, by engaging in physiological, chemical and histological research, could achieve the enviable status of a *bona fide* science[6]. We will show that their campaign was successful and ensured their take over of the Medical Faculty of Paris. In the last three chapters, we will show that Charcot, due to the success of the members of the 'Société de Biologie', embarked on a similar campaign to impose his views of what scientific medicine should be. Charcot, for reasons which we will review, was able to achieve his aim and attain a sort of hegemony in the medical world of the French capital during the 1880's. Therefore, both enterprises were successful, however the first far more than the last.

To substantiate the claim that individuals are able to alter a shared belief system by invading various social hierarchies, I had to turn to diverse historical sources. As mentioned above the works of Paul, Weisz, Goldstein and Léonard provided a substantial corpus to begin with. However, they lacked some key information. Convinced that much of the evidence would be revealed through a day to day account of history, I

[6]Foucault uses both "discours vrai" and "discours de vérité", which I have translated as 'discourse of truth' [FOUCAULT: *L'ordre du discours*, 1989, pp.20-21].

turned to different primary sources. I first reviewed extensively both the lay and medical press. In particular, I studied *Le Progrès Médical*, "l'officiel de Charcot" as it was called, from cover to cover from its creation in 1873 to 1893[7]. The *Progrès* turned out to be a gold mine of information on Charcot and his School and their involvement in medical, scientific and national politics. I also systematically reviewed the *Comtes Rendus et Mémoires de la Société de Biologie* from 1850 to 1869, the *Archives de Neurologie* from 1880 to 1887, and as often as possible, corroborated what the above journals stated with other leading medical periodicals such as *La Gazette des Hôpitaux Civils et Militaires*, *La Gazette Hebdomadaire* and *La France Médicale*. I also repeatedly consulted the political press. Other prime sources were the National Archives and Archives of the 'Assistance Publique'. Lastly, published and unpublished correspondence was sought and consulted. All the information provided by these different sources was combined to produce what I hope is a readable and coherent account of Charcot's times and the various factors responsible for his rise to fame. Furthermore, to render reading easier, I have translated most quotations, providing however, in many cases, the original French passage in a footnote.

In the first chapter, we will review the sparse factual information available on Charcot and Vulpian's youth and early professional careers. The purpose of following Vulpian's career in parallel with Charcot's through this thesis is threefold: Vulpian was Charcot's closest medical friend, they rose in the medical world in tandem, often helping each other, and lastly they came to symbolize two neurological traditions in France. In the second and third chapters, we will analyse the increasing influence of the members of the 'Société de Biologie', suggesting that the Society served as a forum for young physicians who wanted medicine to be

[7]CORLIEU: *Centenaire de la Faculté de Médecine de Paris...*, 1896, p.564.

reformed into a science. Though some will argue that the claim that the members of the Society took over the medical world of Paris is tenuous, I believe they will agree that it provides overall a convincing example of the transition between belief and social influence, or to use Foucault's terms between knowledge and power. In the fourth chapter, we will see that when the take over was well entrenched, conflicting aspirations started to surface on issues which had been seen as minor until then. We will show how Charcot was able to ensure himself a leading position as the division continued. In the fifth chapter, we will examine Charcot at the height of his fame. As in all good stories, the last chapter will show that with fame often comes envy and decline.

# 1

## FAMILY BACKGROUND AND EARLY PROFESSIONAL CAREER OF J.-M. CHARCOT AND A. VULPIAN

This first chapter reviews the early life of the two physicians whose careers are the subject of this thesis. Though it is clear that the two young men had much in common, a knowledge of key differences in family background and mentors is essential to an understanding of their divergent professional goals and contrasting research interests. The last section examines their work during the 1860's at the Salpêtrière Hospice, the institution which subsequently became the mecca of neurology in Paris.

### Family Background

Jean-Martin Charcot, born in Paris on 29 November 1825 to Jeanne-Georgette Saussier and Simon-Pierre Charcot, was proud of his humble origins[1]. His father owned a small carriage-building shop[2]. Many years later, Charcot would tell his students that, owing to the family's uncertain financial situation, his father had decided that he, whose grades were better, would continue his schooling, while the elder Martin would take over the family business, and the younger brothers, Eugène and Emile,

[1]BOURNEVILLE: J.-M. Charcot, *Archives de Neurologie*, 1893, p.177.
[2]GUILLAIN: *J.-M. Charcot*, 1955, pp.9-10.

would follow military careers (Emile later became an officer in the French Army)[3]. Charcot completed his pre-university education at the 'Lycée Saint-Louis' and in 1844, at the age of nineteen, registered at the Medical Faculty of Paris[4]. A hospital 'externe' in 1847, he ranked fifth in the 1848 competition for internship[5]. Some of the other successful candidates would also have academic careers, but only one became his close friend for life: Alfred Vulpian[6].

Edmé Félix Alfred Vulpian came from a very different social background. His family name had lost the noble 'de' in February 1795. Vulpian's grand-father, Count Jean-Baptiste de Vulpian, a barrister to the parliament, published an address to the Court in defence of King Louis XVI in the aftermath of the 1789 revolution[7]. For his monarchic stance, the Republican Government stripped him of his wealth, and sentenced him to forced labor during the Terror(1792-94). He died in 1798, still in his thirties. His young wife found herself destitute with a three-year-old son to raise, Alphonse-André-Jean-Baptiste Vulpian. Despite early hardships, he became, like his father, a successful barrister, and playwright. Unfortunately, he also died in his fourth decade, leaving his wife, Marie-Edmée-Victoire-Caroline d'Arnault, with seven children to bring up[8].

The young Alfred Vulpian suffered much from poverty, a poverty made acute by his mother's and grand-mother's nostalgia for the 'Ancien

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[3] *Op. cit.* 1, pp. 177-178.

[4] MARIE: Eloge de J.-M. Charcot, *Revue Neurologique*, 1925, p. 731.

[5] Guillain erroneously stated in his biography that Charcot had finished third [*Op. cit.* 2, p.12]. The more reliable *Annuaire de l'Internat* shows that Charcot finished 5th and Vulpian 16th out of 20 selected in 1848 [1964, p. 34].

[6] The promotion included in order of selection: Triboulet, Potain, Axenfeld, Labbat-Duroucheaux, Charcot, Berlié, Corvisart, Vassor, Gailliet, Vivier-Brunelière, Trélat, Lescun, Salneuve, Laville, Londe, Vulpian, Dubreuil, Perdrigeon, Parmentier, Surmay.

[7] VULPIAN, J.-B. de: *Consultation...pour les quatre-vingt-quatre citoyens détenus dans la tour de Caen*, 1792.

[8] She was the grand-daughter of a previous 'contrôleur général de la grande Chancellerie de France'.

Régime'. He is said to have reproached his mother's longing for 'the good old days' by stating: "Stop being sorry for the past, look to the future; I promise you that I will make our name famous"[9]. A very studious youth, he won numerous academic prizes before entering the 'Louis-le-Grand' College in 1843. There, he prepared for his exams to enter the "École Normale Supérieure", a prestigious training school of most future high-ranking civil servants, but failed to be accepted the following year. In need of money, his mother considered making him a carpenter's apprentice, until a family friend offered to take him on as laboratory assistant. J.-M. Philipeaux was in charge of Pierre Flourens' laboratory of physiology at the Paris Museum of Natural History. Apparently Flourens was much impressed by his new recruit, and supported his choice to begin medical training in 1845, at the age of 19. Still working at the Museum, Vulpian was made 'interne titulaire' with Charcot in 1848. It was as interns that they first met and became friends, a period that Charcot later described in these words: "Both Parisians,... a perfect communion of feelings, ideas, and inclinations, that even extended to the hardships of life, brought us together; it was for life"[10].

**Mentors**

The young interns worked together at 'de la Pitié' Hospital in 1851. Charcot was a rather short and skinny young man with a bony face, long black hair combed back and a short moustache. Unfriendly to his colleagues, he excelled at clinical observation and was a gifted sketcher[11]. Vulpian's physiognomy was quite different; he was a robust young man, of

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[9]CAMUS: Vulpian, *Paris Médical*, 1913, p.733. Vulpian was born on 5 February 1826.

[10]CHARCOT: Eloge de Vulpian, *Comtes Rendus de la Société de Biologie*, 1887, p.1389.

[11] *Op. cit.* 2, p.11. A portrait of Charcot as intern at the Charité Hospital in 1851 is reproduced in: *La leçon de Charcot; voyage dans une toile*, 1986, p. 41.

average height, with wide shoulders, deep blue eyes and an abundant crop of blond hair. Though shy, he was much liked by his peers[12].

In nineteenth century France, a mentor could have a very significant influence on the training, scientific beliefs and career of his pupils. A well researched example of this phenomenon is found in Goldstein's recent work, in which the intellectual and professional patronage that Esquirol extended to his students is masterfully presented[13]. In this respect, Charcot and Vulpian were guided and inspired by two very different physicians.

Charcot's mentor was Pierre-François-Olive Rayer (1793-1867), a leading consultant and a strong promoter of pathological anatomy and medical research in general[14]. Rayer graduated from the Paris Faculty of Medicine in 1818. His doctoral thesis entitled "A Short Historical Summary of Pathological Anatomy" upheld the virtues of the method he claimed was principally due to the work of Xavier Bichat (1771-1802)[15]. Rayer had "early on established himself as a staunch supporter of pathological anatomy, believing that it could safeguard him from the illusions of physiological medicine"[16]. He had a very promising early career, becoming at age thirty, a member of the therapeutic section of the prestigious 'Académie Royale de Médecine'. His academic career, however, was cut short in the 1820's by the then Minister of 'Ecclesiastic Affairs and Public Education', Father Denis Comte de Frayssinous (1765-1841). De Frayssinous, author of "The Defense of Christianity", scratched the name of Rayer off the list of candidates for associate professorship to the Faculty of

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[12] *Op. cit.* 9, p.vii.

[13] GOLDSTEIN: *Console and Classify...*, 1987.

[14] GILLES DE LA TOURETTE: Jean-Martin Charcot, *Nouvelle Iconographie de la Salpêtrière*, 1893, p.242.

[15] RAYER: *Sommaire d'une histoire abrégée de l'anatomie pathologique*, 1818.

[16] HOEFER: *Nouvelle biographie générale*, 1866, p.739.

Medicine, on the grounds that he had married a protestant. Rayer took the setback in stride and turned to a lucrative private practice, which included at one time the King of France, Louis-Philippe I (1773-1850), and later Napoléon III (1808-1873). Much of his professional success seems to have derived from his status as physician to the wealthy Jewish banker Alexandre Marie Aguado (1784-1842). His large private practice, however, did not stop him from publishing various medical treatises, the most famous being on renal pathology, nor from undertaking scientific research in the private laboratory set up in his home[17]. He was honoured by election to the 'Académie des Sciences' in 1843[18], and in 1858 was selected by his peers to become the first Perpetual President of the 'Association Générale des Médecins de France', which later became the largest union of French physicians. With numerous connections in the upper classes, he was one of the most resourceful and influencial physicians of his time. A contemporary referred to him as a "Prince of medical science"[19]. Unfortunately there has never been any scholarly work published on him. In the next chapter, we will review his importance in the medical world during the Second Empire (1852-1870), in particular as the President and patron of the 'Société de Biologie' and eventual Dean of the Faculty of Medicine, where he had earlier been denied an academic appointment.

Of all his teachers, Charcot considered Rayer his true mentor[20]. Rayer's support of Charcot was a well known fact: "... early in professional life, Charcot had as a guide a powerful friend who shielded him from the deceptions and bitter experiences that often plague a young career"[21]. Charcot was Rayer's intern at the 'Charité' Hospital in 1850, and it is likely that Rayer was responsible for Charcot's selection that year as one of the

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[17]RAYER: *Traité des maladies des reins*, 1839-1841.
[18]CAVERIBERT: *La vie et l'oeuvre de Rayer*, 1931.
[19]Funérailles de M. Rayer, *Union Médicale*, 1867, p.3.
[20]POINT-CALE: Le professeur Charcot, *Les Hommes d'Aujourd'hui*, p.12.
[21]Le Professeur Charcot, p.1.

original titular members of the 'Société de Biologie'[22]. By then, Charcot was also an associate member of another medical society, the 'Société anatomique'[23]. Rayer went further in his patronage of the young Parisian, he recommended him as medical companion to a patient of his, Benoit Fould (1792-1858), for a year-long trip to Italy in 1853[24]. Fould was a wealthy Jewish banker whose younger brother, Achille Fould (1800-1867), was to become one of the most important financiers and policy makers of the Second Empire[25]. Following this trip, Charcot remained the friend and physician of the Fould family[26]. This early association with an upper class clientele was similar to the patronage extended to Rayer by A. M. Aguado in the 1820's. On his return from Italy, Charcot was made head of Professor Piorry's medical clinic at the 'La Charité' Hospital(1853-1855). It is clear from his publications, that Charcot also spent much time examining Rayer's patients in the same hospital[27].

Charcot's prolonged contact with a strong promoter of pathological anatomy undoubtedly played a major role in his lifelong commitment to this method. Indeed, it is difficult to overestimate Rayer's influence on the life and scientific beliefs of his student: firstly, he introduced him to an upper class clientele, thereby ensuring Charcot a very lucrative private practice; secondly, he seems to have convinced him of the truth value of

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[22]The other interns selected were: Jean-Joseph-Alexandre Laboulbene (1825-1898), Charles-Marie Rouget (1824-1904), and Triquet.

[23]Charcot was elected member of the 'Société anatomique' in 1849 [*Op. cit.* 1, p.206].

[24]Modern works on Charcot suggest that he accompanied Achille Fould to Italy. This is unlikely, since the latter was Secretary of State from 1852 to 1860. The error probably stems from Guillain's statement that Charcot was the companion to the younger Fould brother [*Op. cit.* 2, p.14]. However, two contempory sources and a later biographical work, clearly state that in fact it was with Benoit and not Achille Fould that Charcot travelled [*Op. cit.* 1, p.178, *Op. cit.* 21, p.1, and OWEN: *Hysteria, Hypnosis and Healing*..., 1971, p.218].

[25]Benoit Fould was Director of the family bank: 'Fould, Oppenheim et Cie.', and a deputy during the July Monarchy (1834-1848) [VAPEREAU: *Dictionnaire universel des contemporains*, 1862, p.680].

[26] *Op. cit.* 2, p.14.

[27] For an example see: CHARCOT, VULPIAN: Observation de pyélo-néphrite..., 1853, pp.161-7.

pathological anatomy as a privileged method of medical investigation; thirdly, by making him a member of the 'Société de Biologie', Rayer enabled Charcot to mingle with the most famous medical scientists of the day, and with the men of his own generation who were to become the new leaders; lastly, Rayer provided Charcot with a living model of what a mentor should be.

Vulpian also completed a four-year internship. However, except for the 'La Piété' Hospital where he worked with Charcot, there are no records of the other institutions where he trained. During this period, he did continue working in Flourens' laboratory at the Museum, but it is not clear how close was the relationship between pupil and mentor. However, his published work during the 1850's indicates that he spent a great deal of time experimenting at the Museum, and that Flourens' patronage allowed him to present his work to various societies. Flourens, as Permanent Secretary of the physical sciences section of the 'Académie des Sciences' from 1833 to 1867, enabled Vulpian, while still an intern, to deliver his first paper to the Academy in 1852[28]. Though this work, and much of his physiological research during the first twenty years of his career, was done with the help of Philipeaux, the family friend who had arranged Vulpian's appointment at the Museum, it was Vulpian, rather than Philipeaux, who came to be more appreciated by Flourens[29]. Therefore, Vulpian substituted for the aging professor in his chair of Comparative Physiology at the Museum from 1864 to 1867[30]. His lectures , as we will review later, met with much criticism from the clergy.

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[28]LACROIX: Centenaire de la naissance de Vulpian, *Archives de Neurologie*, 1927, p. 1104.

[29]For an example of the work they published together, see the lengthy essay: VULPIAN, PHILIPEAUX: Recherches expérimentales sur la régération des nerfs..., 1859, pp.343-415.

[30]*Op. cit.* 9, p.737.

Though the period during which Vulpian worked in Flourens' laboratory (1848-1868) was seen as one of decline for the Museum as a whole, they were years of great productivity for the young physician[31]. One need only look at the papers Vulpian published in the *Comptes Rendus* of the 'Société de Biologie' which he joined in 1854. Whether it was Charcot or Flourens, one of the honorary founding members of the society, who backed his candidacy is not known. In any case, during 1858 alone, Vulpian presented to this society 15 short observations, and three lengthy essays[32]. Moreover, it was to this society that Charcot and Vulpian presented the first work they coauthored, at a time when Vulpian was not yet a member (1853)[33].

Both young men submitted their Doctoral Theses in 1853. Charcot defended a thesis entitled: "Etude pour servir à l'histoire de l'affectation décrite sous le nom de goutte asthénique primitive, nodosités des jointures, rhumatisme articulaire chronique (forme primitive)". The patient population used for this study came from the Salpêtrière Hospice, where Charcot spent his last year of internship in 1852. Vulpian's thesis, on the other hand, was strictly neurological: "Essai sur l'origine de plusieurs paires de nerfs craniens...". All his anatomical research had been done at the Museum. In the following few years, the two would publish many articles and observations together , and continued as a tandem to climb the hierarchical ladder of the Faculty[34].

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[31]LIMOGES: The Development of the Museum..., in: FOX, WEISZ (eds.): *The Organisation of Science...*, 1980, pp.211-40.

[32]In fact, if one adds up the number of pages of Vulpian's work published in the *Comptes Rendus et Mémoires de la Société de Biologie*, they make up close to 20% of the 1858 series (93 out of 481 pages).

[33] *Op. cit.* 25, p.161.

[34]The full list of publications the two men published together numbers 16 titles, all are included in the bibliography under Charcot's name. The following list gives the years of publication, and whether the subject discussed was neurological(†): 1853, 1854, 1854†, 1857, 1859†, 1860, 1861, 1862†, 1862†, 1862†, 1862†, 1862†, 1862†, 1862†, 1863, 1867†.

Charcot, following his two years as clinic chief at the ' La Charité' Hospital, became 'Physician of the Hospitals of Paris' in 1856[35]. The following year, he competed unsuccessfully for a place as associate professor of the Faculty of Medicine; however, in the 1860 competition, with the support of Rayer, he was selected[36]. It is said, that Rayer, a member of the jury, forced his pupil to continue his oral presentation despite the fact that Charcot had expressed the wish to quit[37]. This was another example of Rayer's eagerness to support his protégé. As was often the case during their early careers, Vulpian was selected the same year. In 1857, Vulpian had also been made a 'Physician of the Hospitals of Paris'. In 1862, both became physicians of the Salpêtrière Hospice. They worked as internists, and not as alienists, in this gigantic institution[38].

## At the Salpêtrière Hospice (1862-1868)

The two friends were appointed physicians to the 'Hospice de la Vieillesse-Femmes', the administrative name of the Hospice, in 1862[39]. The exact circumstances of their dual appointment are not known. As a medical institution, the Hospice had no prestige. For most physicians and surgeons,

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[35]The appointment of 'médecins des hôpitaux de Paris' was not an academic one. They worked for the government's welfare agency: 'l'Assistance Publique'. The candidates competed for these positions which enabled them to continue their work in Paris hospitals responsible for the teaching of interns and externs.

[36]'Pofesseur agrégé' was the true academic title, however, I will use it interchangeably with either 'associate professor' or 'agrégé'. The 'professeur agrégé' was a paid Faculty employee appointed for a maximum of nine years. The common practice was to choose titular Professorsfrom the pool of 'agrégés', though a 1830 Law made it optional.

[37]*Op. cit.* 2, p. 14.

[38]For a list of all medical personnel of "l'Assistance publique" during the nineteenth century, and their respective administrative titles, either as physician (médecin), alienist, surgeon (Chirurgien) or obstetrician (accoucheur), see: *L'Almanach national, annuaire officiel de la République Française*, published yearly by the French Government.

[39]"Hospice de la Vieillesse-Femmes" was the official name given to the Salpêtrière in 1823, as part of an effort to cut away from its penal past [HUSSON: *Etude sur les hôpitaux...*, 1862, p.287], though in practice the hospital was still usually referred to as 'la Salpêtrière'.

as opposed to alienists, it was a first hospital appointment, and seen as a stepping stone while awaiting a transfer to a more renowned hospital like 'La Charité' or the 'Hôtel-Dieu' (see Appendix I).

We are fortunate that an extensive report by the 'Assistance Publique' on the structure and organization of Paris hospitals was published in 1862 by Armand Husson, the then Director of the welfare agency[40]. Though it concentrates more on hospital than hospice organization, and on hygiene more than medical personnel, the report is an invaluable source of data and insight into the functioning of the various Paris institutions. After reviewing the history of the 'Vieillesses-Femmes', Husson turns to a description of its contemporary function.

According to Husson, the Salpêtrière had finally attained its true purpose: "After having been simultaneously a lodging for beggars and a penal institution, the Salpêtrière has finally achieved what it is today: a refuge for needy elderly women"[41]. Though he realized that throughout Europe the traditional renown of the institution was both as an hospice and an asylum, he was unequivocal that the latter role was to be taken over by other institutions in a near future[42]. However, bureaucracy being what it is, the last chronic psychiatric patients left the hospital only in 1921[43].

Husson also provides the reader with much statistical and organizational data. The hospice comprized forty five different buildings, spread out on a vast domain of 310,000 square meters ( 0.31 square kilometer). According

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[40] *Ibid.*

[41] *Ibid.* p. 288.

[42] *Ibid.* p. 288.

[43] GREFFE: La Salpêtrière dans la première moitié du XIX$^{e}$ siècle, in: *La Salpêtrière: hier et aujourd'hui*, 1982, p. 51. Other references on the history of the hospital include: GUILLAIN, MATHIEU: *La Salpêtrière*, 1925, and IMBERT (ed.): *Histoire des hôpitaux en France*, 1982.

to the July 1861 census, the inmates numbered 4,257; these included: 2,555 indigents, 80 sane epileptics, 1,513 insanes, 38 awaiting transfer to other hospices, and 71 retired employees. The ratio was thus of 6 'sane' to every 4 'insane' [44]. The medical personnel, excluding interns and externs, numbered 8 [45]. Though it is clear that the five psychiatry services were each supervised by an alienist, it is less clear what exactly were the responsibilities of Charcot and Vulpian. It is important to know that as of 1851, there was no official position of physician-in-chief of the various hospitals under the control of the 'Assistance Publique'[46], and that every physician was therefore the true head of his service. Hence, Charcot and Vulpian were responsible for wards caring for the indigents, in particular for the 223-bed medical Infirmary[47]. The Infirmary catered to medically ill inpatients or ex-patients. The Infirmary also had 68 surgical beds which, in the early 1860's, were under the care of two other young members of the 'Société de Biologie': François A.E. Follin (1861-62) and Paul Broca (1863-1864)[48].

In his Doctoral Thesis, Charcot identified the population of the Salpêtrière he was scientifically interested in: "The Salpêtrière Hospice is not only an asylum for the elderly poor, but also, as we well know, a place

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[44] *Op. cit.* 40, table, p. 288. Excluded from the calculation are the 38 patients awaiting transfer and the 71 retired employees, their mental status not being given.

[45] *Op. cit.* 40, p.289. It included: two physicians, one surgeon, and five alienists. The alienists were in charge of five different sections: 1- Rambuteau (187 beds), 2- Esquirol (320 beds), 3- Sainte-Laure (271 beds), 4- Pariset (332 beds), and 5- Pinel (231 beds). The Sainte-Laure section included 80 beds for 'sane' epileptics which in 1870 were transfered to Charcot's service. In 1862, there were eight interns in medicine and surgery, and 14 externs. Though this official number of interns and externs appears quite significant, when compared to large designated teaching hospitals like the 828 beds 'Hôtel-Dieu' with its 16 medical and surgical interns and 46 externs, it is clear that the Salpêtrière played a peripheral role in medical education in those days [*Op. cit.* 39, p.550]. In fact, the 1862 policy of the Faculty on the training of students stipulated that the Salpêtrière was not one of the 8 institutions designated for their teaching, but only an alternative hospital when asked for specifically by students [*Op. cit.* 40, p.308].

[46] *Op. cit.* 43., p.320.

[47] *Op. cit.* 39, p:290.

[48] See Appendix I.

of refuge for women of all ages suffering from incurable conditions"[49]. The number of patients was truly enormous. Charcot and Vulpian would spend long hours in the various hospital dormitories systematically examining all the chronic patients[50]. The material collected made up the so-called "ancient fonds" (old record), which was to serve as the repository of the "Archives de la Salpêtrière"[51]. The clinical and pathological material available was huge. Based on Husson's 1861 mortality statistics, they could have performed over 800 autopsies in a single year[52]. This was reflected in the research output of the two co-workers; in 1862 alone, they published six articles in collaboration[53].

For the two friends, the period between 1862 and 1868 was one of great activity. It was the time of the founding of the 'School of the Salpêtrière'[54]. Using his preferred 'anatomo-clinical method', Charcot described during the 1860's many conditions which have become classics in neurological nosology. We will expand on the question of methodology in Chapter 5; at this time, it is enough to recognize that the method consisted of making clinico-pathological correlations (usually based on histology) resulting in descriptions of what were considered to be independent conditions based on these clinical and pathological correspondences. In more traditional terminology, it was a time when Charcot and Vulpian 'discovered' various diseases. These included Charcot's work on what is usually referred to as Amyotrophic Lateral

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[49]CHARCOT: Etude pour servir à l'histoire..., in CHARCOT: *Oeuvres Complètes*, vol. I, 1889, p.353.

[50]CHARCOT: Leçon d'ouverture (1881), in CHARCOT: *Oeuvres complètes*, vol. III, 1890, p. 3.

[51] Charcot used the phrase 'ancient fonds' in his 1883 opening lecture (Ibid, p. 3). "Archives de la Salpêtrière" was used by Cornil when referring to the voluminous patient observations compiled by Charcot and Vulpian in their early days at the Hospice [CORNIL, et al.: Banquet offert à M. le Professeur Charcot, 1892, p.445].

[52]There were 611 deaths of indigents in the year ending in the summer of 1861, with a calculated annual mortality rate of 23.17%, and 272 deaths of lunatics for an annual mortality rate of 18.73% [*Op. cit.* 39, pp. 290 and 292).

[53]See footnote 32.

[54]The label had earlier also been used for the School of Pinel.

Sclerosis (A.L.S.), but in France and other countries is still called 'Charcot's Disease'[55]. The first case of Catherine Aubel illustrates the type of patient the two men were studying and the length of time they would follow them. She was admitted to the Salpêtrière in June 1865, and died more than three years later on 13 February 1869. It was following the autopsy that the case was published; Charcot had to wait two years before he could report a second case[56].

The school also got much recognition for the description of multiple sclerosis, though there was, and still is, much debate as to whether Vulpian or Charcot should get the credit. Followers of Charcot claim, like Guillain: "That it is unquestionably Charcot who gave the most complete description of the symptomatology and separated it with the greatest precision from Parkinson's disease"[57]. Vulpian having published some observations earlier, his student Dejerine claimed that he should get as much credit[58]. It seems that Charcot was ready to share the credit with his friend; in 1887 he granted that Vulpian had "...published the first systematic description of multiple sclerosis as a distinct morbid condition"[59]. Vulpian and Charcot also played an important role in popularizing in France the knowledge of 'paralysis agitens", though the condition had been described in 1817 by Parkinson.

Vulpian's early work however did not rely only on the case material provided by the 'Vieillesses-Femmes', much came from his physiological research at the Museum. His dual appointment of Physician to the

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[55]CHARCOT, JOFFROY: *Archives de physiologie normale et pathologique*, 1869, p.356. A reprint of the observation can be found in: *Op. cit.* 50, vol. II, 1894, p.439.

[56]CHARCOT, GOMBAULT: *Archives de physiologie normale et pathologique*, 1871-72, p:509. A reprint of the observation can be found in: *Op. cit.* 50, vol. II, 1894, p.454.

[57] *Op. cit.* 2, p.111.

[58]DEJERINE, ANDRE-THOMAS: *Maladies de la moelle épinière*, p:100.

[59] *Op. cit.* 10, p.1391.

Salpêtrière and Substitute to Flourens was made easier by the fact that the two institutions were less than a five-minute walk from each other. His physiological work served as the basis for the lectures he delivered at the Museum in 1864, later published as a book: *Leçons sur la physiologie générale et comparée du système nerveux*[60].

In summary, by the end of the 1860's, the two co-workers had established themselves as academic and research-oriented physicians. Their professional careers were very promising, and their bright futures enabled them to marry into bourgeois respectability. In the early sixties, Charcot married the daughter of a wealthy Paris tailor: Laurent Richard. She was a widow and the mother of a girl who later married one of Vulpian's interns[61]. Vulpian himself was married in 1868 to Inès Mantoux, a close friend of Charcot's wife, and the daughter of a wealthy publisher. The union provided Vulpian with complete financial independence for the rest of his life, and testifies to the close relationship between the two men[62].

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[60]VULPIAN: *Leçons sur la physiologie générale et comparée du système nerveux*, 1866. This was the compilation of lectures delivered by Vulpian at the Muséum in 1864 which had first been published in: *La Revue des cours scientifiques*.

[61] *Op. cit.* 2, pp.16-17.

[62]Vulpian married on 17 September 1868 [*Op. cit.* 9, p.739].

# 2

## CHARCOT AND VULPIAN'S EARLY CAREER IN SOCIOLOGICAL CONTEXT (1848-1869)

Though much has been written about the socio-politics of the period between 1848 and 1870, no good sociological analysis of the internal dynamics of the medical world in the French capital has yet been written. I do not intend to present such an analysis, but rather to provide a general understanding of the most likely forces at play. I will rely on the accusations by the clergy and allies of 'materialist' teaching at the Paris Faculty of Medicine during the 1868 French Senate debate, as a landmark for a change in approach to medicine in this institution. Much of my insight into the type of intrigues that plagued the smooth functioning of the Faculty and the various 'concours' of the 'Assistance Publique' was derived from Paul Broca's two volumes of published correspondence[1]. Paul Broca was a student of surgery at the time Charcot and Vulpian were studying medicine. Broca would have probably included them in 1854, in what he called the 'Young School of Paris'[2]. Letters as historiographic sources in this kind of study are invaluable because they provide first-hand insight into the understanding of their own times by contemporaries, and this with minimum censorship. We will also review the history of 'La Société de Biologie', suggesting that it served as a forum for the young 'progressive' physicians who wished to see medicine become a true science. We will

[1]BROCA: *Paul Broca, correspondance (1841-1857)*, 2 vols., 1886, pp.896. The correspondence was published by Broca's wife six years after his death.
[2]Ibid., 3 July 1856 letter, 2, p.420.

then turn to what were the first steps by this group to take over the Medical Faculty. We will end this chapter by analysing the impact of Charcot and Vulpian's increasing visibility as stars of this new elite on the recruitment of interns at the Salpêtrière.

## The Medical World of Paris (1848-1869)

The exact relationship between political power and the various medical hierarchies in Paris during this time is far from clear. Firstly, because the government itself was in a state of flux from the fall of Louis-Philippe, in February 1848, to the establishment of the Second Empire in 1852. Furthermore, Napoleon III's regime, to use Zeldin's words, "was continually evolving"[3]. What it meant for the medical world was that the two ministerial offices which played an important role in making decision affecting medicine, changed hands many times, along with Deans and Directors of the 'Assistance Publique', etc... Lastly, the references on this subject which have been uncovered and used are, to say the least, limited.

The interplay between intraprofessional forces and political ones is best understood if one re lies on hierarchic models of the high-ranking medical world of the capital and their relationship with the various govenmental offices. In the medical Paris of the 1850's and 60's, two basic professional hierarchies existed: the Faculty of Medicine and the medical staff of the 'Assistance Publique'. Though these social structures were altered over the years, they did not greatly change during the careers of Charcot and Vulpian. I have re lied on Husson's account to establish the stucture of the 'Assistance Publique' in 1862[4]. Corlieu's 1896 history of the Fa culty served as the basis for the reconstruction of the Faculty's hierarchy in the

[3]ZELDIN: *France, 1845-1945*, 1, 1973, p.503.
[4]HUSSON: *Etude sur les hôpitaux*..., 1862, pp.607.

early 1860's [5]. Drawings being worth a thousand words, I would encourage the reader to review Appendix II.

What is crucial to remember is that the two hierarchies were highly independent. Not only were they under different ministerial control, but the composition of their highest decision body was very different. The striking difference at this level is the relatively small representation of physicians in the 'Conseil de Surveillance de l'Assistance Publique', only 3 out of the 20 members[6]. Furthermore, two of them did not need to hold an academic position. In other words, the Faculty was given very little hear-say on the functioning of the 'Assistance Publique'. The welfare agency was under the control of both the Ministry of the Interior and the Municipal Council of the Seine. Both could veto decisions taken by the administration or the 'Conseil de Surveillance'. The Faculty itself was by its organization also at the mercy of political pressures. This was most evident at the Dean's level, though the latter could be chosen by the Council of Professors, the final selection was always conditional to the approval of the Minister of Education. In fact, the dean was often chosen by the Ministry without consultation. Though the supremacy of the central government on these two institutions was intended, the selection by means of open competitions of the junior members of these hierarchies limited its influence. The famous French 'concours' were the battle grounds for 'power struggles' between various interested parties who saw in the selection of a 'protégé' the best means of increasing their relative influence, either at the Faculty or at the 'Assistance Publique'.

Concours were selection mechanisms which had appeared during the first Empire. They were initially designed, and continuously 'improved' to

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[5] CORLIEU: *Centenaire de la Faculté de Médecine de Paris*, 1896, pp.603.
[6] *Op. cit.* 4, p:547.

minimize patronage[7]. They all worked on the same general model which stipulated that every candidate for a state appointment should compete against rival candidates in a public competition. The selection was the result of a series of examinations held in front of a jury made up of members selected from a pre-defined group. The history and structure of the 'concours de l'internat' was reviewed in Groopman's recent thesis[8]. The importance of these selections was crucial to the dynamics of the two organizations. The higher the level of the 'concours', the more significant they became because the number of candidates who were selected was smaller and the appointments of longer duration. Therefore, nominees would increasingly play a more important role in the hierarchies which included the selection of their subordinates. It is largely for these reasons that they were the scene of much rivalry between individuals and groups. The history of the concours of both the 'Assistance Publique' and the Faculty of Medicine is riddled with cases of what were considered by some as undue patronage or political interference. It is not up to the historian to judge these claims retrospectively, but rather to try to learn from them how these human organizations worked. In the context of this chapter, it is important to remember a number of conclusions one comes to after studying how the different factions inside these two hierarchies came into competition at the time of these 'concours'.

Firstly, there is the determinant role played by the Government, and the Minister of Education (Instruction publique) in particular , in the selection of the dean of the Faculty. Two examples of this during the period are: the selection of Jean-Baptiste Bouillaud (1796-1881) as dean during the short-lived Second Republic (1848-1852), and the selection of Rayer as dean in 1862. Broca, a republican himself, called Bouillaud the "red dean", and suggested that it was for his republicanism that he was selected ,however

[7]IMBERT (ed.): *Histoire des hôpitaux*, 1982, p:322.
[8]GROOPMAN: *The Internat des Hôpitaux de Paris...*, 1986, pp.281.

it appears that Faculty rivalries were responsible for his replacement a few months later[9]. Broca pointed out that the Faculty was controlled by 'Orfila's coterie'. Orfila had been dean from 1831 until his replacement by Bouillaud in 1848. Bouillaud soon found many financial irregularities in Orfila's management. The latter still had many friends in the Faculty and they were responsible for Bouillaud's dismissal, and replacement by one of the clan who settled things very amicably with Orfila. In fact, the control of the Faculty by 'Orfila's coterie' ended only with the nomination of Rayer as dean in 1862.

The rivalry between the professors of the Faculty and the physicians of the Paris hospitals created an important tension one must keep in mind. The two groups in fact were quite distinct, as Imbert points out: "a professor of medicine may also be the head of a hospital clinical service, but to combine the two appointments is not frequent"[10]. Their usual disagreement was well known, as Broca pointed out to his parents while discussing the response to an article he published in 1854 where he attacked the dean[11] :

> "Public opinion is more and more on my side in the *Gazette hebdomadaire* affair. I am not referring to the opinion of the young, they have been on my side from the start, but rather to the opinion of the high ranking 'médecins et chirurgiens des hôpitaux', and the 'académiciens'. There is much rivalry between them and the Faculty, as I mentioned to you many times in the past. In fact they are quite pleased to see someone complaining about the dominating tendencies of the dean".[12]

Broca, in this letter, pointed to an important alliance of kind if not of purpose, between the hospital physicians and the academicians. Because of the greater number of hospital physicians over academics, it is not

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[9] *Op. cit.* 1, vol. 2, pp. 28-29, 57 and 81.
[10] *Op. cit.* 7, 1982, p.322.
[11] BROCA: Sur l'application des études microscopiques...; *Gazette hebdomadaire*, 1854, p.129.
[12] *Op. cit.* 1, July 1854 letter, vol. 2, p.333.

surprising that the first group held a majority in the 'Académie de Médecine'[13]. Though this body was, and still is, independent from the 'Académie Française' and peripheral to decision making in the two hierarchies we have just reviewed, its prestige was great. On the issue of prestige there is one last observation I would like to make. The advantages of either a Faculty or 'Assistance Publique' appointment were multiple, but certainly not for their remuneration. In fact physicians and surgeons working in hospitals were not paid until much later in the twentieth century, and salaries payed by the Faculty were meagre[14]. However, these appointments were much sought after. Though for some it was to continue scientific and teaching activities, it was certainly also for the indirect pecuniary rewards associated with such positions. As Imbert states, while discussing hospital appointments: "A position asking for so little commitment, which furthermore bestowned much prestige in the eyes of private clients, obviously arose much covetousness"[15]. Husson goes further and states that even having been an 'Interne des hôpitaux de Paris' can affect greatly your clientèle: "...The title of Interne has become, for private practice in Paris as well as in the province, an honourable useful recommendation"[16]. The relevance of having an understanding of the stucture and power stuggles in the Parisian medical world will become evident when we discuss the increasing influence of the 'Young School' in this chapter, and of Charcot and Vulpian in the following chapters.

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[13]Husson stated that in 1862 there were 121 physicians with 'Assistance Publique' appointments (87 physicians, 34 sugeons) [*Op. cit.* 4, p.219]. The same year, the Faculty had 26 titular professors, and 36 'professeurs agrégés' [*Op. cit.* 5, p.167].

[14]*Op. cit.* 10, p.319.

[15]*Ibid.*, p.320.

[16]*Op. cit.* 4, p.206.

## The "Young School of Paris"

One is struck in Broca's correspondence by the numerous references to a young medical elite, of which he suggested he was a leader. Many of these passages are full of revolutionary vocabulary, in keeping with the times and Broca's character. However, it is clear through the events he describes, that such a youth movement did exist. I will try in the next paragraphs to give a few examples of campaigns it got involved in, then from Broca's writing, to see if one could characterize the 'youth movement', and lastly to suggest that Charcot and Vulpian were most likely members of this ambitious group.

Broca's original militancy seemed to spring from his republican allegiances. Soon after the 1848 Revolution he founded the 'Club de la Cité', later to be called the 'Society of Free Thinkers' (Libres penseurs), which held its meetings in the amphitheaters of hospitals[17]. Broca claimed that the club of young republicans would certainly play only a minor role, if any, in national politics. However, he states that " in the affairs of the Faculty it will be a very different matter"[18]. He rapidly became disillusioned by the increasing popularity of Napoleon III. He writes on 14 June 1848: "Politics disgust me....Therefore, I say farewell to politics"[19]. Though national politics seemed to interest him less and less, with his old 'camarades' he started promoting changes in the medical world of the capital. He leaped head first into a small-scale revolution. The one event he describes in great detail is the change in power at the 'Société Anatomique'.

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[17] *Op. cit.* 1, 11 March letter, vol. 2, p.12.
[18] *Ibid.*, p.12.
[19] *Ibid.*, p.43-4.

In February 1851, he described to his parents the uproar caused by his annual report of the 'Société Anatomique'[20]. The Society was founded in 1826 by Jean Cruveilhier (1791-1874), under the same name as a short-lived society created earlier in the century (1803-1807) by his mentor Dupuytren (1777-1835)[21]. Every year the secretary read a summary of the past year's presentations. Broca, secretary for 1850, had to deliver such an address. He decided to read a summary of the important discoveries presented to the Society rather than pay the habitual compliments to all the speakers. The only ones who approved of the procedure were: "the young (members of the executive committee), the ones who have yet to be appointed physicians of the 'Assistance Publique'..."[22]. The speech was a success, and the 'young' took over the executive committee. Broca was elected vice-president. He ends his description by stating: "...The revolution is complete: The old are defeated, and for at least the next year, I am in control of the meetings and the interests of the Society"[23]. There are many other examples of what he presents as a battle between the 'young', including the infamous 'triumvirate' of young surgeons: Broca, Follin, and Verneuil, and the 'old' and reactionary[24]. However, of greater interest is to try to define what Broca meant by the 'young'.

By 'young' he obviously meant young in age, but as mentioned above he also seemed to suggest, at least early on, individuals who were waiting for a position in the 'Assistance Publique'. What is clear, is that Broca saw as 'young', individuals who see the world differently from the 'old', and are ready to attack 'old doctrines'. As he wrote to his father about his prize-winning 1850 memoir on cancer: "I told you that I did not go light-handed

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20 *Ibid.*, p.239-42.
21 *Op. cit.* 5, p.553.
22 *Op. cit.* 1, vol. 2, p.240.
23 *Ibid.*, p.242.
24 *Ibid.*, p.284.

on the old doctrines"[25]. Schiller in his biography of Broca reviews two other instances where Broca clearly was trying to dicredit popular ideas. These are significant because they are reviews of the work of others which Broca wanted to see popularized[26]. What appears to be a clear difference between the elder and what he refers to as the 'Young school of Paris', was the latter's commitment to microscopy. According to Schiller, it was Hermann Lebert (1813-1878), a German-trained microscopist, who introduced the triumvirate to microscopy, and its importance in cancer research[27]. To the names of Lebert's Parisian friends one must add the one of Charles Robin(1821-1885), the first Professor of Histology of the Medical Faculty[28]. Fundamental also for this group was their belief in the superiority of German science. Broca wrote to his parents in July 1851: "I have taken a big decision. I must absolutely know German, therefore, I have started to study it"[29]. One can summarize, by stating that the 'young' were: in their professional youth, inclined to discredit old theories, impressed by German science, and saw the microscope as a revolutionary instrument.

Broca never mentions Charcot and Vulpian in his correspondence. This can be explained by the fact that the majority of individuals he writes about are surgeons, which suggests that Broca mingled less with his medical colleagues. However, they were of the same age; in 1852, Broca was 28, Charcot 27, and Vulpian 26. One certainly finds echoes of Broca's beliefs in microscopy and German science in Charcot's early work. In his 1867 opening lecture to his course on the diseases of the elderly, he

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[25] *Ibid.*, pp.234-5. BROCA: Mémoire sur l'anatomie pathologique du cancer. *Mémoires de l'Académie de Médecine.* 1852. pp.453-820.

[26] In 1855, Broca supported Brown-Séquard's attack on Bell and Magendie's work on the spinal cord [SCHILLER: Paul Broca..., 1979, pp.112-16]; and in 1860, he defended the work of Doyère on the revival of dessicated (dehydrated) animals[ Ibid., pp.116-9].

[27] *Ibid.*, p.59.

[28] *Ibid.*, p.59.

[29] *Op. cit.* 1, p.263.

points out the importance physiology and histology have had in "the great movement of renovation to which we are all partaking today"[30]. Charcot, like Broca, recognized the leading role histology played in the transformation of medicine from the 1840's:

"When the circumstances... were ripe for an evolution, a reform (from the 'Old' pathological anatomy to the 'New'), it was first under the influence of the novel physiology of Magendie and Legallois that it was initiated. A physiology much engaged in experimentation. However, it is later that the reform came about definitely by the creation of histology armed with its microscope... The physiological programme had been set out, but as you will ascertain for yourself, it would have remained a sealed letter without the intervention of histology."[31]

In the same essay, Charcot pointed out that much of the impetus for the change in pathology came from their neighbours 'd'outre-Rhin', and that it had started in the 1840's "largely due to the work of Schoenlein", Hermann Lebert's teacher[32]:

" For over ten years , this great intellectual movement was almost unnoticed in France. From time to time a farsighted observer would try to draw public attention to it. One had to struggle against a wide-spread indifference. While things were moving in Germany, in France we were preoccupied with other matters. However, the day came when it was realized that a great power had established itself on the other side of the Rhine, and that we had to reckon with German science"[33].

One can see that Charcot believed that a reform had taken place in medicine from the 1840's to the 1860's. He would have agreed with his surgical colleague that German science had been instrumental in inducing this change, and that one of its major contributions had been the introduction of histology in the field of pathology. He also associated himself completely with the research programme. This is not as clear in

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[30]CHARCOT: La médecine empirique et la médecine scientifique..., in CHARCOT: *Les Oeuvres Complètes*..., vol. VII, 1890, p.XXIX.

[31]*Ibid.*, p.XXI.

[32]*Ibid.*, p.XXXI.

[33]*Ibid.*, p.XXXII.

Vulpian's early work where he appears to prefer to place himself more in the French physiological tradition, in particular in the footsteps of his mentor Flourens[34]. However, Vulpian is remembered as the man who introduced the teaching of pathological histology at the Faculty of Medicine in 1868 as Professor of Pathological Anatomy[35]. Both also read German and quoted German sources extensively.

It is hard to be absolute as to whether there was any form of organized 'youth movement', as Broca's correspondence seems to suggest, and furthermore, if Charcot and Vulpian were part of it. I believe there was such a community of thought, and that its priviledged forum was the weekly meetings of the 'Société de Biologie'.

## The 'Société de Biologie'

The Society was founded in May 1848, immediately following the proclamation of the Second Republic[36]. It was François A.E. Follin, one of the members of the infamous triumvirate, who first thought of the Society. Follin discussed the idea with a fellow surgical trainee Charles N. Houël and Charles Robin, then associate professor of natural history at the Faculty of Medicine. There is only an incomplete record of who were the original members of the Society, but they included: Claude Bernard (1813-1878) the physiologist, Alexandre Laboulbène (1825-1898) an intern, Hermann Lebert the microscopist, and Huette[37]. They offered the presidency to Pierre Rayer, Charcot's mentor, then in his mid-fifties. The decision to offer

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[34]VULPIAN: *Leçons sur la physiologie générale et comparée du système nerveux*, 1866, pp.920.

[35]RATHERY: Centenaire de la naissance de Vulpian. *Archives de Neurologie*, 1927, p.1106.

[36]GLEY: La Société de Biologie de 1849 à 1900. *Comptes Rendus et Mémoires de la Société de Biologie*, 1899, p.1011.

[37] *Ibid.*, p.1011.

the position to Rayer, who was physician to the dethroned Louis-Philippe I, may appear at first a little surprising. However, as I will show later, Rayer did his utmost not to be seen as politicized; furthermore he was a close friend and protector of two of the senior founders of the Society: Claude Bernard, and Charles Robin.

Rayer had often extended his patronage to Bernard and Robin. Bernard was an intern of Rayer's at 'La Charité' Hospital in 1841, folowing which Rayer played a major part in securing for Bernard the position of laboratory assistant of the famous physiologist Magendie[38]. Time and again, Rayer provided clinical material to the young physiologist, and attended many of Bernard's private demonstrations[39]. Rayer was also instrumental in the 1854 conversion of a Botany Chair of the Faculty of Sciences into a Physiology Chair for his friend[40]. For his part, Charles Robin was introduced to Rayer by another of his protégés, Charles-Edouard Brown-Séquard (1817-1894)[41]. As we will discuss later, it is through Rayer that Robin met Emile Littré, and it was Littré who introduced Robin to August Comte and his philosophy.

The statutes of the Society were drawn in 1848, and are found in the first volume of the *Comptes Rendus et Mémoires de la Société de Biologie* (1850). The executive was composed of a president, two vice-presidents, four secretaries and one treasurer-archivist. All positions were at the origin elected ones but in 1864. Rayer was made perpetual president, a title he kept until his death in 1867. The composition of the first executive showed clearly who were the instigators of this grouping of

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[38] OLMSTED: *Claude Bernard physiologist*, 1939, p.40.

[39] GRMEK, M.D.: *Catalogue des manuscrits de Claude Bernard au Collège de France*, 1967, pp. 474. It is recorded that Rayer was present during different experiments by Claude Bernard [*Ibid.*, pp. 74, 96, 101, 103, 116, 117, 120, 195], and that Rayer provided clinical material to the physiologist [*Ibid.*, pp. 97, 105, 129, 270].

[40] *Op. cit.* 38, p.73.

[41] GENTY: *Un grand biologiste: Charles Robin* ..., 1931, p.23.

young élites: Vice-presidents: Claude Bernard, and Charles Robin; Secretaries: Charles Edouard Brown-Séquard, François Follin, Hermann Lebert, and Segond; Treasurer-archivist: Davaine. The enrollment was composed of four types of members: a maximum of 40 'titular members' (the active members, who had to attend each meeting or pay a fine), 15 'honorary members' (the patrons of the Society), 20 'associate members' (who could not vote), and 80 'correspondent members' (from France and other countries). Applicants had their request reviewed by a secret committee which would submit a re-port on each candidate. The final selection would be conditional on obtaining a majority of votes during a general meeting of the Society[42]. A closer examination of the Society at the time of its creation is quite revealing about the youth and scientific caliber of its original membership.

First, we will examine who were the patrons of the Society. Table 2.1 shows that out of all the honorary members only the infamous 'red' dean, Bouillaud, was not a member of the prestigeous 'Institut de France'. This implied that all were high-ranking scientists, or men of letters in the case of Littré. Though most were medically trained, their professional interests were most diverse, from chemistry, anthropology, physiology to lexicography. Out of the 15 honorary members and only 6 had hospital services, and 9 had no connections with the Faculty of Medecine. This illustrated clearly the desire that the Society should not be primarily medical.

[42]For reprint of the statutes: *Op. cit.* 36, p.1087-9.

TABLE 2.1:Honorary Members of the 'Société de Biologie' (1851)

| NAME | Age in 1851 | M. of I. | M. of A.M. | P. of F.M. | H. of S. | Position |
|---|---|---|---|---|---|---|
| Andral, G. | 54 | • | • | • | • | P. of pathology |
| Bouillaud, J. | 55 | - | • | • | - | P. of clinical medicine |
| Dumas, J.-B. | 51 | • | • | • | - | P. of chemistry |
| Duméril, C. | 77 | • | • | • | • | P. of pathology |
| Milne-Edwards, H. | 51 | • | - | - | - | P. Science Faculty |
| Flourens, P. | 57 | • | - | - | - | P. Museum |
| Gudichaud-Beaupré, Ch. | 62 | • | - | - | - | Botanist |
| Geoffroy-St-Hilaire, I. | 46 | • | • | - | - | P. Science Faculty |
| Lallemand, C. | 61 | • | • | - | - | Retired P. of medicine |
| Littré, E. | 50 | • | - | - | - | Lexicographer |
| Magendie, F. | 68 | • | • | - | • | P. Collège de France |
| Richard, R. | 57 | • | • | • | - | P. of Natural History |
| Serres, E. | 65 | • | • | - | • | P. Museum |
| Valanciennes | 57 | • | • | - | - | P. Museum |
| Velpeau, A. | 56 | • | • | • | • | P. of clinical medicine |

**Legend: (M. of I.): member of the 'Institut'; (M. of A.M.): member of the Academy of Medicine; (P. of F. M.): professor of the Faculty of Medicine; (H. of S.): head of clinical service of the 'Assistance Publique'; (P.): professor; (•): was; and (-): was not.**

Table 2.2 lists the first group of titular members. One is first struck by the age and lack of academic positions of this gathering of young men. If one excludes Rayer and the retired army surgeon-general Laurent, their average age is 32. Only four members were 'professeurs agrégés' of the Faculty of Medicine: Cazeaux, Depaul, Giraldès, and Robin. The first three belonging to the older group of members. It is not clear that at the time the 'titular members' thought of themselves as an elite, but in retrospect it is clear that they were. As Grmek puts it :" this Society, from January 1849, was made up of the best physiologists and naturalists in Paris"[43]. In fact, in 1883, out of the 39 original titular members, 22 had become members or correspondents of the 'Académie de Médecine'. Therefore, more than fifty percent of them acquired this prestigious title, and this, without excluding the ones pursuing non-medical careers. This is direct evidence of the elite

[43]GLEY: *Cinquantenaire de la Société de Biologie*, 1899, p.280.

nature of this grouping. In this and the following chapters, I will argue that the professional success of this young group of researchers was not simply a natural consequence of their exceptional individual merits, but is due to the fact that they shared certain 'progressive' beliefs about science and the role it should play in society, and that they were able to successfully market their belief both in academic and political circles.

TABLE 2.2: Titular Members of the 'Société de Biologie' (1851-1852)

| Name | Age' 1851 | M.D. | M. of A. M. | Name | Age' 1851 | M.D. | M. of A. M. |
|---|---|---|---|---|---|---|---|
| Beraud | | • | | Hirchfeld | | • | |
| Bernard, Ch. | | • | | Houel, Ch. | | • | |
| Bernard, Cl. | 34 | • | | Laboulbene, J. | 26 | • | 1873 |
| Blot, H. | 29 | • | 1863 | Laurent, J. | 67 | • | |
| Bouchut, E. | 33 | • | | Lebert, H. | 38 | • | 1866 |
| Bouley, H. | 37 | • | 1855 | Leblanc, L. | 25 | - | 1869 |
| Bourguignon, A. | | - | | Lebret | | • | |
| Broca, P. | 27 | • | 1866 | Leconte, Ch. | 32 | • | |
| Brown-Sequard | 34 | • | 1868 | Livois | | • | |
| Cazeaux, P. | 43 | • | 1851 | Montagne, J. | 67 | • | |
| Charcot, J.-M. | 26 | • | 1873 | Morel-Lavallé | | • | |
| Depaul, J. | 40 | • | 1852 | Quatrefages, A. | 41 | • | 1883 |
| Davaine, C. | 39 | • | 1868 | Racle | | • | |
| Follin, F. | 28 | • | 1866 | Rayer, P. | 58 | • | 1835 |
| Germain de St-Pierre, J. | 36 | • | | Robin, Ch. | 30 | • | 1858 |
| Giraldès, J | 43 | • | 1869 | Rouget, Ch. | 27 | • | 1866 |
| Goudreaux, A. | 32 | • | 1873 | Segond | | - | |
| Gubler, A. | 30 | • | 1879 | Tholozan, M. | 31 | • | 1867 |
| Hiffelsheim | | • | | Verdeil | | - | |
| | | | | Verneuil, A. | 28 | • | 1869 |

**Legend: (')**: age in 1851 when available; **(•)**: medical degree; **(M. of A.M.)**: year of membership to the 'Académie de Médecine'.

The question therefore is whether the members of the Society shared a common ideology. Much has been written about the positivist background and outlook of the Society. Unfortunately the quality of the research on the subject has often been poor, except for the work of Harry Paul, which I will

refer to extensively[44]. Though I agree with Paul's general statement that positivism played only a minor ideological role in the intellectual life of the Society, its importance needs to be reviewed[45].

The stated purpose of the Society was: "To study the science of organized beings, in their normal and pathological states"[46]. The term 'Biology' had been in infrequent use since the beginning of the century[47] . Auguste Comte defined biology as one of the six 'abstract' sciences, which included, in decreasing value of 'positive' virtue : mathematics, astronomy, physics, chemistry, biology, and sociology. It is clear that this conceptual model served as the basis for the choice of the society's name. In fact, it was by restating this quintessentially positivist classification that Charles Robin began his statement of the purpose of the Society on 7 June 1849: "The Biological Society, to justify the name they have chosen"[48]. He pointed out that it was time for biology to be seen as independent from medicine, though medicine was the primary source of physiological and pathological information, because this science had to free itself of any practical purpose in order to progress. For Robin, medicine was not a science but just an 'Art', which derived its knowledge from applied physics and chemistry and from two parts of biology: pathology, and natural history (which included anatomy and physiology). The name was "to suggest that the medical art does not only borrow from anatomy, physiology, and pathology but also

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[44]PAUL: *From Knowledge to Power; the Rise of the Science Empire in France*, 1985, pp. 415.

[45]However, I have some reservations about Paul's strong 'anti positivist' and 'pro Claude Bernard' bias. This point of view is clear in this statement: "Unfortunately for the positivists, Bernard had what they lacked: creative genius in science" [*Ibid.*, p.77]. This statement when juxtaposed with: "progress might be science's most important product but it is a product of pure science", Paul's inclination becomes quite clear [*Ibid.*, p.64].

[46]"La Société de Biologie est instituée pour l'étude des êtres organisés, à l'état normal et à l'état pathologique" [*Op. cit.* 36, p.1087].

[47]For a discussion of the use of the term biology in the nineteeth century: PAUL: *Op. cit.* 44, pp.64-7.

[48]ROBIN: La Société de Biologie pour répondre au titre qu'ils ont choisi, *Comptes Rendus et Mémoires de la Société de Biologie*, 1850, pp.I-XI.

from natural history..."[49] . Though the society was made up largely of medical men, 32 out of the 39 original titular members had a medical degree, they were not interested only in anatomy and pathological-anatomy to which the 'Société Anatomique' catered, but had much wider interests.

It is hard to establish whether positivism served as the 'official' ideology of the Society for two main reasons; first, discussions which followed each presentation at the Society were not published in its journal before 1868; second, the troubled times which saw its birth were not conducive to public statements of Comtianism, a state of affairs which continued during the police state of the first decade of the Second Empire. For example, Broca's correspondence to his parents in 1852, the year he became a member of the Society, was destroyed at the time because of possible reprisals by the police[50].

Gley in his review of the first fifty years of activities of the Society points out that "the society, whether aware of it or not, was always faithful to 'positivist thinking' by refusing to engage in what the founder of the doctrine labelled 'scientific pecularism' (i.e.: over specialization)"[51]. It is clear from Gley's essay that he did not try to claim that the Society was a bastion for Comtianism but that he was simply trying to provide some 'theoretical' background for his discussion of the history of the Society. In fact, the significant words in his statement are not faithfulness to positivism, but rather unconscious or conscious commitment, "whether aware of it or not". Paul, when discussing the Society's ideology, argues

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[49] *Ibid.*, p.X.
[50] *Op. cit.* 1, p.276.
[51] *Op. cit.* 36, p.1021.

quite successfully that Robin's strong positivism was very much undercut and defeated by Bernard's 'experimentalism'[52].

There is no doubt in the mind of historians that Charles Robin's devotion to positivism was life-long[53] . Robin was introduced by Emile Littré to Auguste Comte and his philosophy in the 1840's. Robin had met Littré through Rayer. Initially much liked by Comte, the young Robin broke away in 1852 from the philosopher's 'Positivist Society'. He did so with Littré and Segond, both founding members of the 'Société de Biologie'. They claimed they wanted to "perpetuate the scientific purity of positivism"[54]. In 1855, he and Littré embarked upon a gigantic project which would consume much of his energy until the early 1880's. It consisted in the entire rewriting of a then popular medical dictionary. The 'Nysten', as it was called then, had first been published in the early nineteenth century. It had kept the name of its second editor who died in 1818. The two men were asked to rewrite the entire dictionary between 1855 and 1857 by the new editor who had bought the rights to the dictionary. The publishers, Baillière et fils, were also responsible for the printing of the *Comtes Rendus* of the Biological Society. The book was later seen by some as a very lengthy 'materialist' tract. If one equated Comtianism with materialim, the work could certainly have merited this label. Paul states that one of the disadvantages of positivism is that it was mummified in Littré's masterpiece: *Dictionnaire de la langue française* (1863-78). He writes somewhat sarcastically: "One disadvantage inflicted upon positivism was that its biological definitions were immortalized and preserved from corruption in Littré's great mausoleum of the French language, instead of being given the typical ephemeral half-life

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[52] *Op. cit.* 44, p.84.
[53] *Op. cit.* 41, p.28.
[54] *Op. cit.* 44, p.63.

characteristic of scientific publications..."[55]. Though Paul is probably right in suggesting that by the 1860's positivism was not the leading ideology in biology, largely due to the great popularity of Bernard's experimentalism and positivist refusal to accept Darwinism, I still believe that positivism had some 'latent effect' on the minds of contemporary medical scientists. Littré in his eulogy to Rayer is aware of the initial role positivism played in the founding of the Society, but is not able to claim a strong allegiance of the Society to it, starting with Rayer himself[56].

The interweaving of positivist concepts in both the *Dictionnaire de la langue française* and the medical dictionary, provided the medical and lay population with a lexicon tainted with Comtian philosophy. Surely, this was not as detrimental for the survival of positivist ideas as Paul seems to suggest. In fact, it probably played a major role in what Littré himself calls the "latent action of the philosophy of Auguste Comte"[57]. As we will soon see, the clergy was much afraid of these means of 'propaganda' and their possible disastrous effect on the minds of students.

In summary, one can say that though the Society had many members who were followers of positivism, Robin, Littré and Segond in particular, there is no evidence that it became its official doctrine. On the other hand, the fact that positivist concepts could be stated so freely in the Society reflects the 'progressiveness' of its membership. Furthermore, positivism wished science to be somewhat of an aphilosophical activity, and therefore permitted researchers to pay very little lip service to is doctrine, while continuing their work supposedly untroubled by philosophical problems.

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[55] *Ibid.*, p.76.

[56] LITTRE: Rayer, *La Philosophie Positive*, 1867, pp. 489-90.

[57] LITTRE: *Médecine et médecins*, 1872, p.VII. The dedication of this book reads: "A la mémoire de M. le Docteur Rayer. Une amitié de près de quarante ans nous a unis; elle commença, moi humble étudiant, lui médecin déjà renommé; elle a duré inaltérable, quelque diverses qu'aient été nos fortunes. Je survis; mais je n'ai pas oublié."

Paul shows that by the 1860's its popularity had much dropped, mostly due to the successful challenge of Bernard's 'experimentalism', and its failure to accept Darwinian evolutionary theory. I would add that, though positivist militancy certainly cooled down, some of its concepts did find there way in the minds of most young medical men of the 1850's and 1860's, and probably later, through Littré and Robin's dictionary. As to how much permeated the minds of Vulpian and Charcot, it is hard to assess.

Therefore, it is clear that Charcot and Vulpian were exposed to Comtian philosophy, like most young medical men of their generation, but also to other 'philosophical' trends like Bernard's 'experimental method'. However, there is no good evidence that either was particularly taken by positivist thinking. Charcot was probably the only one to hear Robin's opening speech, Vulpian having joined the Society only in 1854. Charcot is known to have attended many of Robin's lectures at the 'Ecole Pratique' in the early 1860's[58]. He also co-authored two observations with Robin in 1853, and 1854[59] . In these articles, Robin took care of the histological examinations. That Charcot had many encounters with Robin is not surprising, both being protégés of Rayer. That Charcot would turn to Robin for microscopic examinations is also expected because the patients were from Rayer's service and Rayer sent most of his histological specimens to Robin's laboratory. However, Charcot also once co-authored an article with

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[58]POUCHET: *Charles Robin*..., 1887, p.94.

[59]CHARCOT, ROBIN: Observation de leucorythémie. *Comptes Rendus et Mémoire de la Société de Biologie*, 1853, p. 44. They point out that the patient was a case of 'lienaler leukamia' of Virchow, also known as 'leucocythemia of Bennet', a disease not well known in France. This again demonstrates their awareness of German science. CHARCOT and ROBIN: Vomissements d'une matière.... *Comptes Rendus et Mémoires de la Société de Biologie*, 1854, p.89.

Claude Bernard[60]. Charcot does mention Comte's philosophy in his 1867 'profession of scientific faith'[61].

The short passage lacks clarity, and is not vital to Charcot's argument. In other words, it is quite far from a 'Comtian profession of faith'. It should be seen more as a historical tribute to positivist thinking and the role it played in shaping contemporary epistemological thinking, rather than an endorsement of its truth value. This being the only clear reference to Comte's philosophy, it is therefore unfortunate that an author like Goldstein so readily labelled Charcot as a positivist[62]. There is certainly no good evidence to support this claim. I believe that Goldstein's stigmatization of Charcot is somewhat anachronistic. She uses the epithet in the pejorative twentieth century sense, that is to consider as positivists, individuals who appear to naively believe that science is the prime mover of human progress. However, to call oneself a positivist in the 1850' and 1860's in France had a far more precise meaning. Robin, Littré and Segond were devout and militant positivists in the contempory sense, which was clear by their membership to societies and writing in proclaimed positivist journals. But Charcot, Vulpian and many other members of the 'Société de Biologie' were never labelled as such during their lifetime. A contemporary epithet that would suit Charcot better, is the one of 'progressist'. I am aware of the pitfalls of such a label, or any label for that matter. But it is clear that Charcot was seen as such by his contemporaries and not as a positivist. Charcot's student, Bourneville, would say of his mentor that he was "a man of progress"[63]. It comes then as no surprise that in 1873 Charcot and Bourneville gave the name *Le Progrès Médical*

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[60]CHARCOT, BERNARD: Sur deux cas d'altération du foie..., *Comptes Rendus et Mémoires de la Société de Biologie*, 1851, p.134-8.

[61] *Op. cit.* 30, pp. V.

[62]GOLDSTEIN: The Hysteria Diagnosis and the Politics of Anticlericalism..., *Journal of Modern History*, 54, 1982, pp.209-39.

[63]BOURNEVILLE: J.-M. Charcot, *Le Progrès Médical*, 1893, p.194.

to their medical journal. Vulpian was also seen as a 'progressist' during his lifetime[64]. Furthermore, there is no mention of Auguste Comte or his philosophy in Vulpian's early published work[65]. Charcot and Vulpian were so inseparable, that in 1860 they were appointed together vice-presidents of the 'Société de Biologie'.

The weekly meetings of the Society were held at the 'Ecole Pratique' of the Medical Faculty on Saturdays from 4 to 5 p.m.[66]. Unfortunately, we have no contemporary testimony as to whether ideological debates did take place early in the history of the Society. We will end this section by quoting from Marcellin Berthelot (1827-1907), a famous chemist and Republican Minister, who became a member of the Biological Society in 1854 and was vice-president in 1859 :

"Founded under the impetus of positivist thinking, the 'Société de Biologie' has remained faithful to the spirit of its statutes which were drawn many years ago by Charles Robin. It was, as one can appreciate from its origin, and has continued to be, a powerful forum of scientific initiative, much more alive and free than the academies. In its ranks then, one found young men like: Robin, Broca, Charcot, Verneuil, Laboulbène, Vulpian, Sappey, Brown-Séquard, Rouget, P. Lorain and many others... Under the friendly presidency of Rayer, we would exchange our ideas with the lively congeniality and candid lack of reserve characteristic of youth. By this, we would transmit to each other an enthusiasm and a spirit of initiative." (1886)[67].

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[64]DEJERINE-KLUMPKE: Centenaire de Vulpian, *Archives de Neurologie*, 1927, p.1119.

[64] *Op. cit.* 34.

[65] *Op. cit.* 1, p. 327.

[67]BERTHELOT: in :*Discours prononcés à l'inauguration de la statue de Claude Bernard...*, 1886, p.10.

## The 1860's, Preparing the Take Over of the Faculty

The 1860's were a tumultuous time for the medical world in Paris. This was a reflection of the generalized discontent with the Second Empire. The faculty was the scene of many mass demonstrations, and professors were abused in their lectures by students. It was in this atmosphere of awaiting change that the members of the 'Société de Biologie', who though they shared much of the discontent against the regime, benefiting from Rayer's patronage and his links with the Imperial establishement, started to be appointed to Faculty chairs. In 1860, only 6 members held Faculty chairs (24%). By the end of the decade they composed a third of the professoral body, holding 9 out of the 27 positions (33%). In this section, after reviewing the increased number of newly appointed 'progressive' teachers between 1860 and 1869, I will turn to the important events that shook the medical world of the capital during this period. In doing so, I will emphasize the importance of the increased influence of 'progressive' forces in society and their connections with the medical world. I believe it is only through an understanding of the general increase in faith in the progress of society in general, and in medicine in particular, that one can understand the increased influence of the young medical group among whose stars were Vulpian and Charcot. This period served as the prelude to the Third Republic during which this group would, so to speak, take over medical and scientific institutions, before internal quarrelling would divide them. In other words, I will present the history of the period that prepared the Faculty for the Third Repubic, the 'Scientific Republic' as it has been called.

The Faculty began this period with only 6 professors having connections with the Biological Society. Five were honorary members and only one

was a titular member. By the end of this period, 9 professors were members of the Society. More significant was the fact that 7 of them were titular members appointed to a chair for the first time. Table 2.3 lists the new professors. In this group one finds Vulpian who became professor of Pathological Anatomy in 1867. Others include Robin who had a Chair of Histology created for him in 1862, and two members of the infamous triumvirate: Broca and Verneuil. In fact, out of the 19 professors appointed for the first time to a chair from 1860 to 1869, close to half were members of 'La Société de Biologie' (42%). They were the same age as the other new appointees, with an average age in 1865 of 46, compared to 45.6 for the others, and with a comparable age distribution curve[68] . This is significant, because it suggests that if there was a difference in philosophy or approach to medicine it could not be explained by generational differences. In fact, as it will become clear later, all professors selected during Würtz's deanship (1867-75), shared many of the ideals of the members of the 'Société de Biologie'. Noteworthy is the fact that the first members of the Society to become professors of the Faculty after the creation of the Society were appointed during Rayer's short stay as Dean (1862-63).

[68]For this calculation I have excluded the age of Rayer, as a special case and completely outside the age range of the other new professors. He was 69 years old in 1862.

TABLE 2.3: NEW PROFESSORS OF THE FACULTY OF MEDICINE (1860-69)

| Dean | Y. of app. | Name | Age w. app. | M. of S.B. |
|---|---|---|---|---|
| Dubois | 1860 | Monneret | 40 | |
| | 1861 | Tardieu | 43 | |
| Rayer | 1862 | Robin | 39 | • |
| | 1862 | Rayer | 69 | • |
| | 1862 | Depaul | 51 | • |
| | 1863 | Baillon | 36 | |
| | 1863 | Pajot | 47 | |
| Tardieu | 1864 | Behier | 51 | |
| | 1865 | Richet | 49 | |
| Würtz | 1867 | Axenfeld | 42 | |
| | 1867 | Broca | 43 | • |
| | 1867 | Hardy | 56 | |
| | 1867 | Lasègue | 51 | |
| | 1867 | Sée | 49 | |
| | 1867 | Vulpian | 41 | • |
| | 1867 | Sappey | 57 | • |
| | 1867 | Verneuil | 44 | • |
| | 1868 | Dolbeau | 38 | |
| | 1868 | Gubler | 47 | • |

**Legend: (Y. of app): year of appointment; (Age w. app.): age when appointed; (•): member of the 'Société de Biologie'.**

Rayer was appointed by the Emperor on 19 April 1862. He was one of the most powerful physicians in Paris, though he had never held an academic position. Besides being the physician of Napoléon III, he was a friend of the new Minister of Finance, Achille Fould (Minister from 1861 to 1867). He was a member of both the Academy of Sciences and the Academy of Medicine. Furthermore, in 1858, Rayer became perpetual president of the 'Association Générale des Médecins de France'[69] . This association was the product of the fusion of various provincial medical unions in which Rayer played a major role. On 31 August 1858, the new statutes of the Society were signed by the Emperor. Among the founding members, one finds many of the honorary members of the 'Société de

[69]CAVERIBERT: *La vie et l'oeuvre de Rayer*, 1831.

Biologie': Andral, Claude Bernard, Serres, Bouillaud, Littré[70]. Pecker points out the many functions that the Association served in the nineteenth century: protecting the rights of trained physicians against unqualified practitioners, assisting needy practitioners, and mobilizing the medical profession, using its *Bulletin*, on necessary changes in medical education[71]. Furthermore, Rayer was made president of the 'Comité consultant d'hygiène de France' in 1857 [72]. This meant that he was in regular contact with the highest ranking municipal civil servant, the 'Préfet de la Seine', a position then held by the Baron Haussmann (Préfet from 1853 to 1870). This enumeration shows clearly the magnitude of Rayer's position in the medical world. It seems that he achieved this high standing by presenting himself as unpolitisized as he could, though supporting the Empire. As he writes in an undated letter: "I cherish the Empire, I admire the Emperor. In this there is only disinterested sympathy. I am no one and I intend to continue being so."[73].

Though Rayer does not appear to have been very political, he was not a mere passive observer in the medical world in the capital. There his connections with the Emperor were both useful and disastrous. Paul Dubois was the dean replaced by Rayer. He was not very popular, and contributed little to the Faculty[74]. Broca in his correspondence writes of him in very derogatory terms, as just another acolyte of the old 'Orfila clique'. He goes as far as to predict his downfall in November 1856[75]. Dubois remained Dean though he apparently had numerous clashes with the Ministry of

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[70]PECKER (ed.): *La Médecine à Paris du XIII^e au XX^e siècle*, 1984, p.233. For the full list of the original members: LEPAGE: *L'Association Générale des Médecins de Paris*, 1903, p.160.

[71] *Ibid.*, p.233.

[72] *Op. cit.* 69.

[73]RAYER: Autographe letters collection of the Wellcome Institute for the History of Medicine Library: Rayer, *63700 (Undated letter): "J'aime l'Empire, j'admire l'Empereur. Il n'y a là qu'une sympathie désintéressée. Je ne suis rien et je ne veux rien être".

[74] *Op. cit.* 5, p.400.

[75] *Op. cit.* 1, p.429.

Education. Nevertheless, Rayer, after taking over the dean's office, soon found himself in boiling water. The students refused to accept him, and in fact physically prevented him from delivering his first lecture in November 1862. They denounced his selection as political. The puplic protest was backed by a then young academic, Ernest Renan (1823-1892). Renan was a close friend of Charles Robin. He had just been fired from his chair at the 'Collège de France' following his first lecture, because of his supposed positivism and atheism. He was reported to have called Rayer: "The dean appointed by 'coup d'état' to the Faculty of Medicine"[76]. The professors of the Faculty are also said to have strongly opposed Rayer's nomination. Rayer, being one of the strong men of the 'Assistance Publique', was a Head of Service with no Faculty appointement; one can imagine that the body of professors did not want him as dean. Though Rayer was never able to teach in the chair of Comparative Medicine created for him, he was still able to introduce many changes in the Faculty before he resigned in January 1864. These numerous changes included: increasing the capacity of some the Faculty's amphitheaters; supplying some of the University clinics with modern equipment; sending François Jaccoud to Germany to find out what France could learn from its methods of medical teaching; the creation of six new complementary clinical courses; the setting up of new laboratories; and lastly the creation of Robin's chair of Histology. Though Robin also faced some opposition to his appointment, student protestors soon let him continue his lectures in peace. His youth, positivist militancy and the 'progressive' nature of his views were clearly responsible for public clemency. Significant during Rayer's deanship was that two out of the four new professors appointed, Robin and Depaul, were members of the 'Société de Biologie'.

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[76] *Op. cit.* 69.

Though Rayer failed in many ways as dean, he was able to get the Imperial Government to make the 'Société de Biologie' one of the few medical societies considered of 'public interest'[77] . This ensured much prestige to the Society, making it the second medical society after the 'Société de Chirurgie' (1852), to have acquired this enviable status. It appears that Rayer's request was not only socially motivated, but was also based on practical reasons. One of the Society's wealthy members, Ernest Godard (1827-1863), had died leaving a large sum to the Society, or its president, to endow a prize. For the Society to have access readily to the funds, it needed the new status[78]. Charcot, Vulpian, Robin and a few others composed the jury for the first prize[79]. The Society took advantage of this change in official status to change its organization. It created the new class of 'honorary titular members'; thus enabling an influx of younger titular members. As we will review later, this largely benefited Charcot's interns.

Following Rayer's resignation in January 1864, Auguste Tardieu (1818-1879), a recently appointed professor, became dean on 16 February 1864. Tardieu was a young man aged 46. He had been a popular teacher in the chair of Legal Medecine to which he had been appointed in 1861. Unfortunately, student unrest would force him to step down in January 1866. His popularity dropped, according to Corlieu, following the congress of young republicans in Liège in 1865[80]. Some medical students had taken part in the convention, and on their return they were disciplined. From then on, the Faculty was the scene of many demonstrations, and Tardieu's position soon became untenable. In 1865, the Faculty was also under attack because it had approved a series of evening lectures on the history

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[77]On 15 November 1864, Imperial Decree proclaimed 'La Société de Biologie': "Société d'utilité publique" [*Op. cit.* 36, p.1016.)

[78] *Comtes Rendus et Mémoires de la Société de Biologie*, 1864, p.I.

[79]The jury also included: Martin-Magron and Gubler [*Comtes Rendus et Mémoires de la Société de Biologie*, 1864, p.I].

[80]Op. cit. 5, p.245.

of medicine organized by 13 associate professors. The series was discontinued after Axenfeld's lecture entitled : "Jean Wier, and the witches". The cancellation was based on accusations that he had professed 'materialist' opinions. This was the prelude to a larger offensive by the clergy and its allies against the teaching at the Faculty in 1868. Only two professors were appointed during Tardieu's deanship, neither of whom were members of 'La Société de Biologie'.

Finding another dean during these chaotic times was not an easy undertaking. The job was first offered to two older physians, Auguste Nélanton (1807-1873) and Alfred Velpeau (1795-1867), but both declined. Finally, it was accepted officially on 24 February 1866 by the 49 year old professor of Organic Chemistry: Charles-Adolphe Würtz (1817-1884). He was a medical graduate of the most German of French medical faculties, the School of Medicine of Strasbourg. He became an 'agrégé' of the Faculty of Paris in 1847, and aged only 36, took over Jean-Philippe Dumas' chair of Chemistry. Dumas, an honorary member of the 'Société de Biologie', had turned to politics during the Second Republic. Würtz appears to have been a very popular dean, probably because he was seen as 'progressive'. In Pierre Larousse's fifteenth tome of the *Grand Dictionnaire Universel*, Würtz's popularity was said to be due to his: "Very liberal mind and his concern with the material and scientific interests of his students"[81]. His first years in office saw great student agitation and attacks on several of the teachers by the clergy, claiming that 'materialist' philosophy was tought at the Faculty of Medicine of Paris. I will now review the 1868 Senate debate on the teaching at the Faculty, which I believe clearly illustrates that the Faculty was changing hands, and that the newly appointed young professors had a different view of how medicine should be studied, practised and taught.

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[81]LAROUSSE (ed.): *Grand dictionnaire universel du XIX^e siècle*, vol. 15, 1876, p.1386.

Firstly, I will present the events that preceded the debate, as they are responsible for the timing of the petition against 'materialist' teaching at the Faculty of Medicine sent to the Senate on 7 June 1867. In November 1866, Charles Robin, then a professor at the Faculty, was summoned by the Minister of Education, Victor Duruy (1811-1894). Duruy was told that Robin had made some 'materialist' statements in one of his lectures. Robin convinced the Minister in a private hearing that the accusation was not founded. Nevertheless, Duruy sent a letter to the vice-rector of the University expressing his apprehention about certain students: "You will also have to keep an eye on some of the students who in the Faculty, and even in some of its amphitheaters, freely profess their convictions on matters that have nothing to do with the study of medicine"[82]. This was not publicized at the time, but illustrates that segments of the population and the professorial body did not entirely approve of some of the young teachers in the Faculty.

At the time, Robin was still a junior professor in the Faculty, and much singled out because of his strong belief in positivism. The new 'liberal' dean, and the academic committee that selected professors, soon shifted the balance in the Faculty. This shift is very much at the roots of the polemic. In late 1866, there were six vacant chairs in the Faculty. The quarrelling caused by this en masse nomination was lively to say the least[83]. On February 2 1867, six new professors were appointed by Würtz: Auguste Axenfeld, Charles Lasègue, Germain Sée, Alfred Hardy, Paul Broca and Alfred Vulpian. The last two were members of the 'Société de Biologie'.

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[82]Most of my quotations will come from a compilation of the debates held in the Senate and printed in 1868. This book obviously was to support the teachers of the Faculty, as its unsigned preface was loaded with anticlerical remarks: *L'Enseignement supérieur devant le Sénat. Discussion extraite du Moniteur, aver préface et pièces à l'appui*, 1868, p. 46.

[83]PASCAL: La presentation aux chairs vacantes à la Faculté de médecine. *Le Mouvement Médical*, 1866, pp.699-706.

During the Senate debate, Sainte-Beuve, the famous French literary critic, suggested that the nominations of Broca a protestant, Axenfeld a Greek Orthodox, and Sée a jew were not blessed by the clergy[84]. However, it was the nomination of Sée which was most objected to. Sée was a protégé of the devote catholic and elder statesman of the Faculty, Jean Cruveilhier (1791-1879 ). Cruveilhier secured the appointment of his student, though Sée was not an associate professor. This was not against the official rules, but certainly not a common practice. The students reacted in much the same way to this appointment as they had to Rayer's as dean. His first lecture was the scene of a riot, with some students opposing his unusual nomination and others trying to defend him by claiming his allegiance to various 'unworthy' philosophies. Obviously, there is no unbiased report of what really happened, but the event was discussed in various newspapers. Sée was asked to see the Minister, but meanwhile the editor of a 'clerical' paper, Léopold Giraud of the *Journal des villes et des campagnes*, started to circulate a petition condemning 'materialist' teaching by some professors of the Faculty of Medicine. On June 7, it was presented to the Senate with 719 signatures. Charles Robert provided a contemporary definition of 'materialism', granted that in his address to the Senate he was trying to discredit the accusations made against the Faculty:

> "Materialism is an *a priori* assertion. A materialist, one who professes believing in this despairing and nihilistic philosophy, will dare hold these claims: I know and I state, without any demonstration, that there is nothing but matter and the forces that act on it; I know and I state, without having proved it, that God does not exist; I know and I state, without having proved it, that there is no such thing as an immortal soul, in the religious sense of the word; and I know and I state, without having proved it, that man is without any free will..."[85].

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[84] *Op. cit.* 82, p.109.

[85] ROBERT: in: *Op. cit.* 82, pp.206-7.

The medical world saw in this public protest the workings of rival ideological factions in the Faculty itself[86]. The Minister of Education, made aware of this possibility, asked the dean's opinion. Würtz stated in a letter that the nominations had nothing to do with "school prejudices"[87] . In the decision, according to Würtz, "there was only one inclination, one single preocupation, that of making science enter the path of observation and experimentation, so that later we will determine the general laws"[88].

The controversy seems to have been partly forgotten until a series of events further upset the clergy. First, a medical thesis, by a student of Axenfeld which had been accepted by the Faculty, was being reviewed for its philosophical content by the Ministry of Education in early March 1868[89]. At the same time, the Minister of Education was drafting a bill to open state schools for girls, which would infringe on the Catholic Church's monopoly. Lastly, there was a public scandal about a supper organized by Sainte-Beuve on Good Friday where it was claimed the guests, which included Robin, Renan, Taine, Flaubert and others, had eaten pork sausages. Though the final decision to cancel Grenier's thesis was yet to be made public, Comte de Ségur d'Argnesseau, a 'clérical ultramontain', requested that Giraud's petition should at long last be debated in the Senate. On March 28, Chaix d'Est-Ange read a report on behalf of a commission which had reviewed the claims of the petition. It is worth presenting the content of 'Giraud's petiton', as it was soon to be labelled, and though it gave no names, to identify who were the accused:

"If some despicable doctrines seem to have recovered these days some repute, it is because they have their own Chairs in many of our Institutions of higher learning. We do not wish

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[86]ROBERT: in : *Op. cit.* 82, pp. 227-8; and DE CASTELNAU: Sur l'orthodoxie de l'Ecole de Médecine, *Le Mouvement Médical*, 1868, p.328.

[87]A reprint of Würtz's letter to the minister can be found in: *Op. cit.* 82, p.228 (Letter dated: 8 February, 1867).

[88] *Ibid.*, p. 228.

[89]GRENIER: *Etude médico-psychologique du libre arbitre humain*, 1867.

to point our finger at anyone, but we are entitled to denounce the doctrines. At the School of Medicine we collected this sentence: "Thought is a property of the nervous system, when the latter dies, it does not leave for a second life in a better world" (Sée). A few days later, another professor presented an apology of Malthus in which he spoke in these terms: "Where ease grows, with it increases paternal solicitude, and therefore by virtue of this solicitude the number of children diminishes" (Broca). Lastly ,because we have to limit ourselves, we have also heard: " Matter is the scientist's God....If the monkey has a soul, then man also must have one, but if not, neither does man" (Sée). Because statements are always accompanied by actions, we have also witnessed a physician of the Salpêtrière Hospice who ridiculed a destitute women in front of his students because she wore a medallion of the Virgin Mary (Charcot or Vulpian). Similar incidents occur everyday in hospitals. Those are the facts, they are worth a thousand generalities always too vague, and it is impossible to deny them because they were witnessed by many. It is important that we go from peaceful opposition to a counter-attack. The work accomplished by religious men in primary and secondary education could also be carried out in Free Universities. Finally, science has much to gain from open competition. Freedom in higher education would witness the birth of rival Universities, we would see then what is worth the claim that materialism should be equated with science...

In summary: In the name of public morals, social order, liberty of conscience, and the progress of science, we who sign:

1- Call the attention of the Government to the teaching in certain of our Faculties;

2- And request as the only remedy to the propagation of these despicable doctrines: Freedom of Higher Education." [90]

The attacks were clearly against the group of recently appointed professors. The objectives were apparently more significant. It appears that the clergy and its allies were desperately trying to bargain to keep their control over the education of women, and furthermore try to regain some control over of higher education which had been taken completely out of their hands by Napoleon I. Moreover, their attacks were very much to discredit the Minister himself. The controversy was reviewed in detail

[90] *Op. cit.* 82, pp. 27-9.

in the lay and medical press. Other accusations were made in the Senate debate against other teachers and some students[91].

A three-day debate was held two months after the presentation of Chaix d'Est-Ange's report to the Senate, in which he had suggested that the Senate should drop the petition because everything necessary had been done, and furthermore because the Ministery was studying the question in detail. However, what is of greater relevance to this thesis is to discuss the accusations made against Vulpian, Charcot and Charles Robin.

Vulpian was accused of two 'materialist' crimes. First, in the petition he or Charcot , it never becomes clear which one, were charged with having rediculed a poor women for her medallion of the Virgin Mary. In a lecture, Vulpian retorted : "What has been reproached to the physicians of the Salpêtrière is a lie, a pure invention. However, such action does not surprise me coming from individuals whose moto is: "Slander, slander... something will always come of it in the end"[92]. During the debate, he and Charcot sent a letter to the Director of the 'Assistance Publique' protesting against the petition. Being "the only physicians responsible for the care of the elderly and handicapped women of the Salpêtrière", they saw the necessity of stating that if the petition refered to either of them, the accusation was not founded[93]. Their letter was accompanied by letters of protest by the four alienists of the Hospice (Auguste Voisin, Moreau, Trélat père, and Delasiauve), and the surgeon E. Cruveilhier (son of Jean Cruveilhier, Sée's mentor)[94] . The petitioners never substantiated their

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[91] Axenfeld for not stopping his student Grenier from submitting his thesis. Franck, a respected teacher of the Sorbonne, was accused of preaching materialism in some of his lectures. The case of Alfred Naquet (1834-1916), a young agrégé of the Faculty of Medicine who had been sentenced to prison for his role in organizing the Liège congress, was used to support the claim of the increasing prevalence of 'materialists' in the Medical Faculty.

[92] *Op. cit.* 82, p.108.

[93] *Ibid.*, p.238.

[94] *Ibid.*, p.238.

claim during the debate but continued to assert that there had been some witnesses. Vulpian was also denounced by the Cardinal Bonnechose as having professed 'materialism' in his lectures on the physiology of the nervous system[95]. Mgr. Dupanloup, one of the leading clerical polemists, had done the same a few years earlier. Vulpian's letter to the Minister is worth quoting at length. According to Vulpian, Cardinal Bonnechose and Mgr. Dupanloup were quoting the following statements out of context:

> "Will-power, as it is usually understood, is an integral part of mental faculties...Volitions are exclusively cerebral manifestations...We accept without reservations that intellectual phenomena in animal are similar to human ones."[96]

Furthermore, he not only opposed the way in which his statements were cited, he could not conceive that their scientific truth could be debated:

> "Have not all modern physiologists accepted these obvious truths? Is it intended that we should be forced to teach that animals have neither will-power nor intelligence? It is necessary that scientists of other countries, who will read about this debate, see what certain individuals conceive as freedom of education in France!"[97]

He ends his letter by opposing the claim that Robin would only vote for candidates who shared his views when he was a judge in a 'concours'. Any support Robin could get was welcomed, since he was the most attacked after Sée. Cardinal Bonnechose clearly saw a long-term danger for the corruption of the minds of young students in Robin and Littré's *Dictionnaire de Médecine*. His attacks are directed against the lack of control by the Ministry over books that are commonly used by students. To this Duruy replied that he had started looking into this difficult

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[95] *Ibid.*, p.17.
[96] *Ibid.*, p.236.
[97] *Ibid.*, p.236.

question. Robin was not lecturing at the time, and therefore made no public statement about the various allegations.

The petition was dropped by the Senate by a two to one majority. Dumas, Würtz's mentor and honourary member of the 'Société de Biologie', obviously voted against it. However, though the claims of 'materialism' were probably purely rhetorical, it is clear that there had been fundamental changes in the Faculty and their nature can only be best summarized by Würtz himself:

"Currently, medicine has entered a new path. It does not seak the shelter of one or another philosophical system which could provide a basis for its doctrines. By cutting itself from past traditions, it has abandoned *a priori* methodology and found more solid bases on which to build in experimentation and observation. In want of earning the status of a science, it has completely adopted the scientific method. Like physics and chemistry, medicine now starts by first collecting facts, from which the immediate and proximal consequences are deduced. Medicine will engage itself in more general inductions only if the bases on which it builds are solid.

That is the experimental method, which leads to a never-ending path of discoveries. Though it does produce positive facts, it has nothing in common with positivism, the doctrine which some are trying to confuse it with... The Faculty of Medicine has introduced in its teaching this precise method taken from modern science. It teaches physiology according to experiments, and medicine, to facts. In their lectures, competent teachers present the structures of organs, their normal or pathological functioning, based only on the material basis of the various phenomena. This is the trend that some would like to see condemned, by stigmatizing it as materialism. Some would like to see the State take the side of a doctrine opposed to the one which actually prevails, and hope that this would lead it to victory. This would not only impose teaching programmes, but convictions. - The Faculty is confident that this will not happen..."[98]

The 1860's were a time of change at the Faculty. A group of young physician-scientists was slowly taking over the old institution. Giraud's petition and the Senate debate that followed , though no doubt the

[98] *Ibid.*, p.204-5.

byproduct of larger conflicting social aspirations, nevertheless clearly singled-out the 'new' changing Medical Faculty as a major focus of contagion for progressist ideology. It is clear that Vulpian and Charcot were seen by more conservative factions of the Faculty and of French society at large, as major propangandists of what they stigmatized as 'materialism'. Furthermore, I would argue that the young men playing leading roles in this transformation of academic medicine in Paris were for the most part members of the 'Société de Biologie'. This, I believe, is supported by an article in *Le Mouvement Médical*. The *Mouvement* was a militant republican medical journal. Following the Senate debate, it published an article by H. de Castelnau entitled: "On the Orthodoxy at the Faculty of Medecine"[100]. The article provides a breakdown of the Faculty's professorial assembly into three categories: pure atheists (materialists), deists (spiritualists) and professors whose convictions are not known[101]. The professors labelled as materialists were: Axenfeld, Broca, Gavarret, Monneret, Pajot, Régnault, Robin, Sapey, Sée, Verneuil and Vulpian. De Castelnau commented on this list, that "...by their number, and more importantly because of their scientific stature, this assemblage warrants the assessment of an eloquent cardinal that the majority of the Faculty's professorial body is materialist..."[102]. In fact, numerically 40% of all professors were identified as 'materialists' (11/26). Even more significant was the fact that over half of the 'materialists' were members of the 'Société de Biologie' (6/11). In fact, except for the older honourary members of the Society, Bouillaud who was labelled a 'deist' and Depaul whose convictions were not clear, all professors members of the 'Société de

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100 *Op. cit.* 86, pp.327-31.

101 De Castelnau classifies the professors in the following way: "1- athées purs, *matérialistes* : Axenfeld, Broca (SB), Gavarret, Monneret, Pajot, Régnault (SB), Robin (SB), Sapey (SB), Sée, Verneuil (SB), et Vulpian (SB); 2- déistes de fantaisie, *spiritualistes* : Bouillaud (SB), Lasègue, et Longet, 3- professeurs *incertæ sedis* : Baillon, Béhier, Bouchardat, Denonvilliers, Depaul (SB), Gosselin, Grisolle, Hardy, Laugier, Richet, Tardieu, et Würtz" [ *Ibid.*, p.330]. '(SB)' stands for: member of the 'Société de Biologie'.

102 *Ibid.*, p.331.

Biologie' were said to be 'materialists'. In other words, 75% of professors who were members of the Society (6/8), as opposed to only 28% of the professors who were not (5/18), were considered 'materialists'. This , I believe, is strong evidence that the group of young physician-scientists, members of the 'Société de Biologie', were seen by their contemporaries as reformers of medicine in Paris.

In summary, by the end of the 1860's, Charcot , Vulpian and the other members of the 'Société de Biologie' were starting to achieve high professional status. Not only were they becoming more numerous at the Medical Faculty, but also in other educational institutions of the capital. Furthermore, they were getting jobs at the 'Assistance Publique', and were elected members of the Academies of Sciences and Medecine. The medical world of Paris was starting to change hands. Sainte-Beuve, who had defended the 'materialists' in the Senate debate, wrote in these terms: "Twenty five years of worthy teaching by the Faculty of Medicine would push forward many things in our country; modern thought would be launched."[103]

## The First Interns of Charcot and Vulpian at the Salpêtrière (1862-1869)

In this section we will argue that one of the direct consequences of the increasing visibility of Vulpian, and of Charcot in particular, as leading reformist physician-scientists of the Faculty, was the attraction of first-rate interns to their services at the Salpêtrière. This is significant when one recalls that the old hospice was seen very much as a peripheral educational institution.

[103]SAINTE-BEUVE: *Nouvelle correspondance*, 1880, p.269-277.

When Charcot and Vulpian arrived at the Salpêtrière in 1862, the 'Assistance Publique' was appointing one intern to each medical service. Therefore, Charcot and Vulpian had each an intern. In practice, according to Cornil, the two interns and their chiefs would work as a team[104]. In 1863, Cornil was the second intern of Charcot after Soulier (Appendix III). He stated much later, that at the time he was not very enthusiatic about spending one year in the old hospital. Cornil had not chosen his rotation at the Salpêtrière, but never regretted having been appointed to Charcot's service[105]. In 1864, Charles Bouchard chose to become Charcot's intern. This is the first sign of Charcot's increasing academic reputation. Bouchard was no ordinnary intern, he had finished first in the 1862 entry competition for internship, which implied that he could more or less choose in which service he wanted to go. Furthermore, he asked to be appointed again to Charcot's service for his fourth year of internship in 1866. He became Charcot's close collaborator, and his doctorate thesis done under the latter's suppervision was to become a classic in neurological history[106]. Bouchard also became the private secretary of Rayer on Charcot's recommendation[107]. He was followed in 1865 by Gotard, and in 1867 by Lépine. In 1868, Bourneville became Charcot's intern, and for ever after, as we will review in the next chapters, his political right arm. I believe it is indicative of Charcot's increasing 'progressive image' which was responsible for Bourneville's selection the same year the Senate debate took place. Bourneville was a well known militant republican, who collaborated with radical papers like *Le Réveil* and *Le Mouvement Médical*. Furthermore, the fact that Charcot accepted him, though he was not a top intern like his predecessors, is indirect evidence that Charcot

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[104]CORNIL: Banquet offert à M. le Professeur Charcot, *Les Archives de Neurologie*,1892, p.445.

[105] *Ibid.*, p.445.

[106]BOUCHARD: *De la pathogénie des hémorrhagie...*, 1869, pp.155.

[107]LE GENDRE: *Un médecin philosophe: Charles Bouchard...*, 1925, p.58.

shared some political beliefs with his trainee (Appendix IV). Joffroy, who became professor of Mental Diseases in 1893, was Charcot's intern in 1869. It is striking, as we will review later, that most of them kept close links with Charcot, and in this, like Rayer, he gave them good reason to do so.

Though Charcot's medical service at the Salpêtrière was physically far from the Faculty and the Hôtel Dieu Hospital, except for Cornil and Bourneville, all the interns who rotated through Charcot's service during the 1860's were in the best standing of their promotion and chose willingly to go to the old hospice (Appendix IV). Why? The reasons, as always, are many. There is no doubt that in the small community of interns, the competence of a teacher, the availability of material for their thesis, the 'progressiveness' of the teaching, the use of certain new technologies, possible future patronage, and immediate help in acquiring membership to a Society or publishing priviledges in a journal were all discussed at length. In this regard, Charcot and Vulpian must have been seen by them as rising stars of a progressive movement which had enough backing in the older estiblishment, think of Flourens and Rayer, to be worthwhile spending time in their services. Furthermore, in the medical services of the Salpêtrière, clinical material clearly abounded, and the teaching there was highly personalized because of the relative absence of other students in these early days. Debove, who was Charcot's intern in 1873, stated that still at that time there were so few students around that he worked almost always "en tête à tête" with Charcot[108].

It is certainly clear that working at the Salpêtrière with Charcot would open the doors of the 'Société de Biologie'. Cornil, for example, presented his first essay to the 'Société de Biologie' in 1863 while still an intern at the

[108]DEBOVE: J.-M. Charcot, *Le Bulletin Médical*, 1900, p.1390.

Salpêtrière[109]. In 1863 alone, Cornil presented two essays and fifteen observations to the Society. With the 1864 change in the statutes of the Society, new positions of titular members were open. The same year Cornil was made a member, and presented nine observations and one essay. This pattern of being an intern at the Salpêtrière one year, and a member of the Société de Biologie the next, repeated itself until the end of the sixties: Bouchard became a member in 1865, Cotard in 1866, and Lepine in 1868. Not only did these young men become members of the elitist group, but they could use the *Comptes Rendus* to publish their work. As Gley pointed out, one of the most attractive advantages of the Society was the speed with which their journal was printed and distributed[110].

Furthermore, the relationship between the young heads of service and their pupils seems to have been quite agreeable to ambitious students. This is illustrated by the acknowledgement of Cotard and fellow intern Prevost to an essay published in the *Comptes Rendus* in 1865. They thanked their mentors, Charcot and Vulpian, for providing them with the clinical cases of strokes needed for their research, and also giving them access to old case material they had compiled over the years. Furthermore, Vulpian helped them in designing experiments in experimental physiology and pathology, to experimentally reproduce symptoms of strokes in animals. They ended their acknowledgement by stating: "May we be allowed to thank our mentors , Messrs Charcot and Vulpian, who provided us with the idea of such a research and helped us by their many suggestions"[111].

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[109]CORNIL, CHARCOT: Contribution à l'étude des altérations anatomiques de la goutte.... *Comptes Rendus et Mémoires de la Société de Biologie*, 1863, pp.139-164.

[110] *Op. cit.* 36, p.1020.

[111]COTARD, PREVOST: Etudes physiologiques et pathologiques sur le ramollissement cérébral, *Comptes Rendus et Mémoires de la Société de Biologie*, 1865, p.50 Prévost was made a member of the 'Société de Biologie' in 1867.

I believe it is crucial for an accurate understanding of the increased influence of Charcot and Vulpian in the Faculty during the 1870's and 1880's, to realize the productive and mutually advantageous relationship they had with their interns and ex-interns, helping them benefit from their rise in the medical world, while their students in return would disseminate their teachings and back them in their ambitious enterprises. Charcot was far more gifted than Vulpian in ensuring fidelity on the part of his pupils. In this, he was becoming in the 1860's what his mentor Rayer was still: a powerful mentor, and a gatherer of men. The parallel is so striking, that I shall end by quoting Benjamin Ball's words at Rayer's funeral in 1867:

"As a mentor, no one knew better than Rayer how to choose his students. As a mentor, no one knew better how to direct his students in defined direction. In fact, one of Rayer's greatest titles to fame will be to have been able to group around him so many powerful minds, which he stimulated by contact with his own."[112]

[112]BALL: Rayer. *Comptes Rendus et Mémoires de la Société de Biologie*. 1867. p. XIII.

# 3

## MEDICAL REFORM (1860-1875)

The end of the 1860's in France is usually referred to as the "liberal phase of the Second Empire"[1]. The progressive increase in individual liberties permitted public voicing of dissident opinions. The 1868 Senate debate, reviewed in the previous chapter, clearly illustrated this trend. During the deliberations, every faction could express its views, both in the Senate itself and by means of the press. The late 1860's were undoubtedly a time during which various groups were interested in reforming higher education. Obviously, Faculty professors, as opposed to the clergy or the Minister of Education, had very different ideas as to what shape and form the reforms should take. In the following pages we will review the contemporary writings on the subject, and emphasize the demands of the young rising medical elite of Paris. We will then review the troubled times of the Franco-Prussian War of 1870, and the difficult early days of the Third Republic. We will then turn to an analysis of the increasing influence of the 'young progressive' elite at the Faculty of Medicine suggesting that during the first five years of the Third Republic, the Faculty was taken over by this group. In the last section, we will discuss Charcot's major contribution to the medical reform movement: the creation with his pupil Bourneville of *Le Progrès Médical*. We will show how this medical

[1] WEISZ: *The Emergence of Modern Universities in France...*, 1983, p.6.

journal not only promoted medical reforms, but also contributed to increase Charcot's visibility as a leader of reformed medicine in France.

**Campaigning for Medical Reform**

Victor Duruy's reformist Ministry (1863-69) seriously studied many modifications to be introduced in education in general, and medical education in particular[2]. In 1866, he asked for reports to be compiled on the state of the humanities and sciences in France, including several monographs on medicine and related subjects. As Duruy stated in 1868: "For the past two years the Government has been studying possible reforms in medicine"[3]. Two 'agrégés' were commissioned to study the state of medicine: Jules Béclard(1817-1887) and Alexandre Axenfeld(1825-1876). They travelled extensively in France and in German-speaking states, prior to submitting "A Report on the Progress of Medicine in France" in 1867[4]. Both were strong supporters of the place of 'science' in medical research , teaching and practice. Béclard became professor of Physiology of the Faculty of Medicine in 1872 and is remembered for his role in introducing laboratory and experimental demonstrations in the teaching of physiology at the Faculty[5]. Axenfeld, as we will see later, was one of the teachers accused of materialism in the 1868 Senate debate. Furthermore, protest to his 1865 lectures entitled: "Jean de Wier et les sorciers", had forced Duruy to cancel an entire history of medicine lecture series[6]. It is of interest that this background did not prevent his selection as coauthor of the report. However, the Medical

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[2] *Ibid.*, p.6.

[3] *L'Enseignement supérieur devant le Sénat...*, 1868, p.317.

[4] BECLARD, AXENFELD: *Rapport sur les progrès de la médecine en France*, 1867.

[5] CORLIEU: *Centenaire de la Faculté de Médecine de Paris...*, 1896, p.268.

[6] AXENFELD: *Conférences historiques de médecine et de chirurgie: Jean Wier et les sorciers*, 1865, p.577; and GOLDSTEIN: The Hysteria Diagnosis and the Politics of Anticlericalism..., *Journal of Modern History*, 1982, p.224.

Faculty had already led the way by publishing a document that advocated profound changes in its organization and teaching.

During the 1860's and 1870's the Medical Faculty studied closely numerous reforms. First, Rayer sent Sigismond Jaccoud (1830-1913), to investigate medical teaching in the German-speaking world. Jaccoud produced a report in 1864 entitled: "On the Organization of Medical Faculties in Germany"[7]. The conclusions were: "...that German science was superior to that of French science, and that German Universities were superior to French Faculties..."[8]. It was followed by an essay on the teaching in German Universities, which Würtz presented to Duruy in 1870[9].

Both works asserted that French medical education would gain much by emulating some of its neighbor's structures and priorities. As Würtz stated in 1868, "...the end is for medicine to become a true science"[10]. I share Weisz's opinion that "the spread of this 'scientific' ideal of medical education was directly related to the growing prestige of German science and higher education"[11]. However, I have some reservations as to his sociological interpretations of the motivations behind this 'scientific ideal'. He claims that a monopolistic thirst was largely responsible for the position held by French faculty-trained physicians. This is in accordance with the concept of "medical professionalization" proposed in the introduction to his book[12]. Though an explanatory model of some merit, it does not satisfactorily account for individual beliefs and motivations. Furthermore,

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[7] JACCOUD: *De l'organisation des facultés de médecine en Allemagne*, 1867.
[8] *Op. cit.* 1, pp.61-2.
[9] WURTZ: *Les hautes études pratiques dans les universités allemandes...*, 1872.
[10] *Op. cit.* 3, p.203.
[11] WEISZ: Reform and Conflict in French Medical Education..., in: FOX, WEISZ (eds.), *The Organization of Science and Technology in France...*, 1980, p.65.
[12] *Op. cit.* 1, p.6.

when used to assess the value of shared beliefs, Weisz's model too readily discards all human ideals as mere rhetorical devices, and stipulates that the 'true' sociological motivation was a thirst for economic power. Hopefully this thesis provides evidence to support an alternative model, one which does not neglect individuals by demonstrating how their beliefs influenced their rise to positions of scientific and social authority.

These official publications by the Ministry and the Faculty comprised only a fraction of what was published on the need for medical reform. The other writings fall into two general categories. The first, exemplified by Emile Combes' book (1835-1921), addressed more collective issues: the need for popular access to medical services in provincial areas, stricter control on who should be allowed to practice, higher incomes for practitioners, a decrease in the power of the Faculty and hospital elites, etc...[13]. In other words, Combes' essay and similar writings advocated profound social changes in the medical world. The second category of writings upheld the reforms proposed by the Faculty. A good example was Paul Lorain's tract published in 1868, entitled: "The Reform of Medical Studies by Laboratories"[14]. Lorain(1827-1875), was an 'agrégé' of the Faculty, and an active member of the Société de Biologie since 1855. He wrote the essay on his return from a trip to the German-speaking states[15]. The message is clearly voiced in his Introduction:

> "In science, Germany has taken the lead over France, and this is undeniable... Anyone travelling in Germany will be struck by the progress achieved in natural science. For a Frenchman the first feeling is one of admiration, but soon it is replaced by one of emulation."[16]

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[13]COMBES: *De l'état actuel de la médecine et des médecins en France*, 1869.
[14]LORAIN: *De la reforme des études médicales par les laboratoires*, 1868.
[15]LABARTHE: *Nos médecins contemporains*, 1868, p.351.
[16]*Op. cit.* 14, p.6.

Lorain, like Würzt and Béclard, insisted on the need for laboratory facilities, as the only means of allowing French medical science to compete with its neighbours:

> "In saying that German medicine is more learned then ours, I do not wish to accuse our medical scientists of being unequal to their task... What I am trying to point out is that the Germans are better than us at research in pathological anatomy, histology, physics and chemistry applied to medicine, and experimental physiology. In other words, they have earlier, and more thoroughly understood the value of *the laboratory* (Italics in the original)".[17]

Following a long description of the laboratory facilities in various German cities, he turned to the need for the French government to sponsor laboratories and adequately remunerate professors, so that they could partake in the research movement. Lorain's message was explicit, and it was to be brought home with the Franco-Prussian war two years after its publication: "Far-sighted governments must support science. To provide resources for the army is one form of prudence, to do the same for science is another. This is so, because these are the two ways to ensure that a nation keeps its rank in the world."[18]

In summary, it is clear that by the end of the 1860's, various groups and individuals were advocating 'medical reform'. The younger members of the Faculty seemed to have had the Government's ear, if one recalls Béclard and Axenfeld's report to the Ministry. This was also the case at the Faculty of Medicine of Paris, where Würtz had turned to Vulpian, Robin, and Longet prior to writing his report to the Ministry[19]. The reforms proposed were inspired from German examples. They emphasized the need to make medicine a true field of scientific enquiry, and the need for financial resources which only the state could provide. The Franco-

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[17] *Ibid.*, p.8.
[18] *Ibid.*, pp.17-18.
[19] *Op. cit.* 9.

Prussian war of 1870 would force them to postpone their plans for a few years. Following defeat, their wounded national pride would compel them to reshape their previous desire to emulate German science into a discourse of more open rivalry.

**Political Turmoil, and the Early Days of the Third Republic**

In this section, following a rapid review of the events that changed the face of French politics betwen 1869 and 1872, I will turn to their consequences on medical reform. Though the place of Charcot and Vulpian in this early reform movement was minimal, an understanding of these times and their impact on the Paris medical world is necessary to comprehend their subsequent increased authority.

The political events of this period are well known. The liberalization of the Second Empire culminated in a general election on May 24 1869. Though the Imperial Government held an absolute majority in the "Corps Législatif', the opposition obtained 44 percent of the vote[20]. Leading republicans, like Léon Gambetta (1838-1882), were elected. However, the trend was cut short on July 19 1870 by Napoleon III's declaration of war against Bismarck's Prussia. The French defeat of Sedan, on September 2 of the same year marked the end of the Imperial Regime. The army of 'la Défence Nationale' was forced to sign an armistice in January 1871. This was followed by a general election, and a popular uprising in Paris (La Commune de Paris). The rebellion was crushed by the armies of the elected government, causing the bloodshed of over 20,000 'Communards' in Paris[21]. By August 1871, the Assembly was said to be 'constituent', and a

[20]BOURNAZEL, et al.: *Les grandes dates de l'histoire de France*, 1986, p.195.
[21]ZELDIN: *France, 1848-1945*, Vol. 1, 1973, p.744.

certain degree of social stability followed. However, the Republic had to wait until 1875 for its constitution to be drafted.

As Zeldin pointed out, over a third of the population fled the capital during the war or after the siege[22]. Many physicians left, including Paul Bert and Charles Robin. The latter was made medical director of the army of 'la Défence Nationale' in Bordeaux by Gambetta, this though he had benefited from many Imperial favors[23]. Others like Claude Bernard stayed in the countryside, away from the turmoil[24]. Vulpian remained in Paris, while his wife was sent to the country and Charcot treated the injured at the Salpêtrière[26].

France had barely recovered from the war and the bitter fighting of the Paris Commune when reformists were back campaigning for changes. The events ensured a greater appeal to their programmes. As Weisz has stated: "The Franco-Prussian War of 1870 further intensified the French sense of inferiority with respect to Germany, and it increased pressure for reform"[27]. Though, as he added "little could be done until the political fate of the emerging Third Republic was settled (1875)"[28]. Nonetheless, it did not stop pressure groups from organizing and various proposals from being voiced.

Higher education in general, and medical education in particular, became again issues of much contention. In medical reform, the change of political structure permitted a more active campaign by various physicians. As Zeldin stated, physicians clearly became more politicized:

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22 *Ibid.*, p.738.
23POUCHET: *Charles Robin, sa vie, son oeuvre*, 1887, p.147.
24OLMSTED: *Claude Bernard Physiologist*, 1938, p.110.
26CAMUS: Vulpian, *Paris Médical*,1913, p.739; and LUBIMOFF: *Le Professeur Charcot...*, 1894, p.66.
27 *Op. cit.* 1, p.65.
28 *Ibib.*, p.65.

"In France, the medical profession is particularly interesting, for there is a political dimension to its influence. Its rise to power in the state is one of the striking features of this century (nineteenth)... There were 11 (physicians) in Napoleon III's Corps Législatif of 251 members, 33 in the National Assembly of 1871, but by 1898 their number had risen to 72."[29]

The importance of this increased medical representation was to be felt most significantly on the medical world itself, not merely because of their absolute number ,which was still relatively small (6% of deputies in 1872), but rather because they united to form a pressure group. In 1872, the 'Réunions Scientifiques de l'Assemblée' were created. All the physicians who sat in the National Assembly met weekly to review issues related to science in general, and medicine in particular. Though the creation of this committee was welcomed by many, its political influence as a group appears to have always been limited[31]. However, it ensured that medical reform remained an important issue. Alglave, in a *Revue Scientifique* editorial, pointed out that the first matter under review was medical education which he added: "... must not be flawless, because everyone wants it reformed"[32]. This statement clearly reflected a wide-spread feeling in the medical world of Paris at the time.

In this group, the Faculty and the 'Société de Biologie' were poorly represented. In fact only one Professor of the Faculty and one member of the Society were elected in 1871. This reflected the overall success of conservative and monarchist candidates. The rare physicians involved in politics after the downfall of the Empire were largely republicans, and many were personal friends of Léon Gambetta. The foremost of them was Paul Bert(1833-1887). He had been made Professor of Physiology at the

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[29] *Op. cit.* 21, p.23.

[31] ALGLAVE: Les réunions scientifiques à l'Assemblée, *La Revue Scientifique*,1872, p.741.

[32] *Ibid.*: p.741.

Sorbonne in 1869. A member of the 'Société de Biologie' since 1865, he became its president in 1878, after the death of Claude Bernard. In 1870, Gambetta had made him Prefect of the 'Défence Nationale' for the 'Département du Nord'. Though he was defeated in the 1871 elections, he entered the National Assembly after a by-election in 1872. This was to be the start of a successful political career. Jules Béclard, who had been one of the authors of the 1867 report on the progress of medicine in France, was elected as a moderate republican in 1871. Others who had been appointed by Gambetta to play official roles in 'la Défence Nationale' were less fortunate. Among them were the infamous Robin who became a senator in 1876, and Charcot's pupil, Victor Cornil (1837-1908). Cornil, and a fellow member of the 'Société de Biologie' J.A.H. Depaul, were both unsuccessful as republican candidates in 1871. However, Cornil became a deputy in 1876, and in 1874, Depaul became a member of the Paris Municipal Council.

In summary, during the early 1870's, while the National Assembly was controlled by conservative monarchist groups, only three Faculty professors, all republicans, got involved in active politics. Among these, only Béclard was elected. Depaul failed, and Trélat was elected at the municipal level only. Of the three members of the 'Société de Biologie', only Bert was elected in 1872. Cornil and Depaul had to wait five and three years respectively. In fact, one had to wait for the take over of the government by republicans to see a greater number of academic physicians and members of the 'Société de Biologie' play an active role in French politics.

However, this involvement in politics by promoters of 'scientific' medicine was not privately seen by all scientists as positive. Some saw in it a form of corruption of scientific ideals. This was clearly stated by Claude Bernard in a letter to his friend and confidante, Madame Raffalovich:

"I have just learned that my student, M. Bert, who has taken over my chair at the Sorbonne, and for whom I had founded much hope for science, was made 'Préfet du Nord' (1870). It was for me a bitter disillusion, because I had for him much affection. Some would ask: Why shouldn't a professor of Physiology make a good Prefect? Undoubtedly, some are far less capable. However, from this I draw one conclusion: If Bert chose to become Prefect, it implies that it is not science that gives meaning to his life."[32]

For the medical reform movement to be successful, a greater representation of republicans had first to be acquired, this would have to wait for the constitutional establishment of the Third Republic in 1875. Furthermore, the campaign had to change its viewpoint. The discourse had to change from one of admiration for German structures, to one of acknowledged will to compete and achieve scientific superiority over rivals. The involvement of German scientists in the war had disillusioned and enraged many French medical scientists. In 1870, Vulpian wrote to his wife:

"How for a long time I was mistaken about the Germans. I believed they were at the first rank of civilized nations. What a mistake! While all intelligent men in France cursed this war, even before it was declared, seeing it as a revolting monstrosity; the most enlightened classes of Germany threw themselves on the battlefield with eagerness, with a passion stripped of any concern for even the most basic laws of humanity."[33]

This bitterness can be found in many of the writings of scientists of the time. This new hostility was even expressed in the 'Société de Biologie', which had been germanophile since its creation. This is clearly illustrated by Paul Bert's 1873 proposal to exclude all German scientists from its

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[32] Letter dated February 17 1871, in: BERNARD: *Lettres à Madame R.*, 1974, p.78.
[33] Letter of Vulpian to his wife, dated November 6 1870, in: *Op. cit.* 25, p.741.

ranks[34]. The proposal was defeated by a small majority. What had been a more fraternal emulation in the 1850's and 1860's, was transformed into an open rivalry. However, the aim was the same, to promote the cause of science as being the only means of progress. In the following section, I will follow the reform movement from 1872 to 1875, showing the increased role, though very different in nature, that Charcot and Vulpian played in this process.

## Completing the Take Over of the Faculty: Charcot, Professor and Vulpian, Dean

We will now review the period between 1872 and 1875, insisting on the increasing control by the "New School", to borow Broca's expression, of the Faculty. As a matter of fact, the Faculty changed hands by the traditional means of promotion, so that by 1875 it could, more than ever in the previous fifteen years, display some consensus over policies. We will first discuss Würtz's 1872 proposal for the physical reconstruction of the Faculty, stressing who advised him on the desirable changes. We will then turn to a quantification and analysis of the take over per se. Lastly we will examine Charcot's selection as professor of Pathological Anatomy, and Vulpian's selection as Dean.

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[34]LEONARD: *La médecine entre les pouvoirs et les savoirs...*, 1981, p.140. The German correspondents in 1872 included: Bischoff (Munich), Brücke (Vienna), Carus (Leipzig), Dubois-Reymond (Berlin), Helmoltz (Berlin), Henle (Goëttingen), Hering (Stuttgart), Hirschfeld (Warsaw), Hoffmeister (Leipzig), Hyrtl (Vienna), Koeliker, (Würzburg), Leuckart (Munich), Ludwig, (Leipzig), Luschka (Tübingen), Mayer (Bonn), Meckel (Halle), Rokitansky (Vienna), Schultze (Bonn), Stannius (Rostock), Stilling (Kassel), Virchow (Berlin), W. E. Weber (Leipzig), E.H. Weber (Leipzig). Also of interest, is that in the 1870's they continued to label Ehrmann of Strasbourg a national correspondent, as if the city was still part of France.

Würtz, in 1872, made public an 1870 proposal to update completely the decrepit facilities of the Faculty[35]. The emphasis was in complete agreement with the then dominant feeling of younger Faculty members, that "the rebuilding of the 'Ecole Pratique' ( School for practical instruction and laboratory research) should take priority over enlarging the 'Ecole Théorique'"[36]. He was asking for a large scientific complex to be built, which should include a Pathological Institute and a Physiological Institute, numerous laboratories for other disciplines, as well as improved facilities for dissection and microscopic studies for students. Würtz sought the advice of only a few of his colleagues' namely Sappey, Robin, Vulpian and Longet[37]. This supports the claim that the members of the 'Société de Biologie' were starting to play an important role in the functioning of the Faculty, even before the downfall of the Second Empire. In fact, all except F. A. Longet (1811-1871), were long-standing members of the Society[38]. Longet was Professor of Physiology. He was probably consulted in 1870 because he was medical consultant to Napoleon III[39]. Würtz never saw his project materialize while he was Dean, the building of the 'Ecole Pratique' started after his resignation in 1875.

The major claim of this chapter is that the Faculty of medicine during this period completed its change of hands. Whether the 1870's change of political system was a prerequisite is difficult to assess. This reservation stems from the fact that by the late 1860's certainly, things were already changing, no doubt because of the increased liberalism of the Imperial Regime. The Republic permitted this trend to continue and even accelerate after 1875. As discussed earlier, the Parisian medical elite was well

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[35]WURTZ: *L'Etat des bâtiments et des services matériels de la Faculté de médecine de Paris*, 1872, pp.852-54.

[36]*Ibid.*, p.853.

[37]*Ibid.*, p. 853.

[38]Sappey (1810-1896) and Vulpian were members of the 'Société de Biologie' since 1854, while Robin was a founding member.

[39]*Op. cit.* 15, p. 386.

structured, in time its hierarchical system could permit a gradual swing of tendencies in the candidates selected at all of its levels. It appears that this is what happened during this period.

At the professorial level, the appointment of Robin in 1863 to the new Chair of Histology marked the beginning of a progressive invasion of this group by members of the 'Société de Biologie'. The following table illustrates this quite clearly.

TABLE 3.1: Percentage of Professors of the Faculty of Medicine Belonging to the 'Société de Biologie' (1860-1880)

| -Year ..... | 1860 | 1865 | 1869 | 1875 | 1880 |
|---|---|---|---|---|---|
| -Total number of chairs ..... | 25 | 26 | 27 | 29 | 33 |
| -Number of profs. memb. of the S.B. ..... | 6' | 7 | 9 | 11 | 13 |
| -% of profs. memb. of the S.B..... | 24% | 27% | 33% | 38% | 39% |

Legend: Memb: members; profs: professors; S.B.: 'Société de Biologie'; and ('): 5 out of the 6 were honorary members.

In 1875, one notices that 38% of all professors of the Faculty were active members of the Society. The number of members at the highest echelon of the academic pyramid greatly influenced the selection of those who would be promoted from the lower levels. This is clearly illustrated in the next table.

TABLE 3.2: Percentage of New Professors of the Faculty of Medicine Belonging to the 'Société de Biologie' (1860-1875)

| -Year ..... | 1860-64 | 1865-69 | 1870-74 |
|---|---|---|---|
| -Memb. of S.B/ total * app. ..... | 3/9 | 5/11 | 3/5 |
| -% of new prof. memb. of the S.B. .... | 33% | 45% | 60% |

Legend: (*): number; app: appointed; and others as table 3.1.

One finds that the relative percentage of professors belonging to the Society recruited between 1870 and 1875 was larger than during the preceding decade. This is an indication of the impact of the growing number of full professors who were members of the Society on the selection of new professors. This phenomenon also occurred at a lower level of the academic pyramid.

The next level of selection was the 'concours d'agrégation', or competition for associate professorship. The fact that it was a public competition made the process very different from the choice of professors. Full professors were chosen either by their peers, with the final approval of the Minister of Education, or since 1853, simply by the Minister[40]. The selection of protégés at the 'agrégation' level was more difficult. The judges were selected among all professors and members of the Academy of Medicine, and furthermore, the public nature of the competition was a deterrent to overt patronage. However, a greater number of members of the Society being professors, the probability of holding a majority on any jury increased. I would further argue that something even more fundamental was happening. First, to become a member of the Society itself was very competitive, and indeed the fortunate few selected had to share the pro-scientific values of the original membership. In other words, to become a member of the Society you not only needed some patronage, but by the nature of 'la Société de Biologie', you had to be elitist, hard-working and pro-scientific. Second, the 'medical scientism' promoted by the members became increasingly popular. Students and journalists who witnessed these competitions were more and more convinced of its truth value. Therefore, what had been the dream of a few hard-working young physicians had with time been integrated into the shared belief system of the medical academic world. In this new world, it was logical that the

[40]GIRALDES: Quelques remarques sur l'organisation des Facultés de médecine. *Le Progrès Médical*, 1875, p.626.

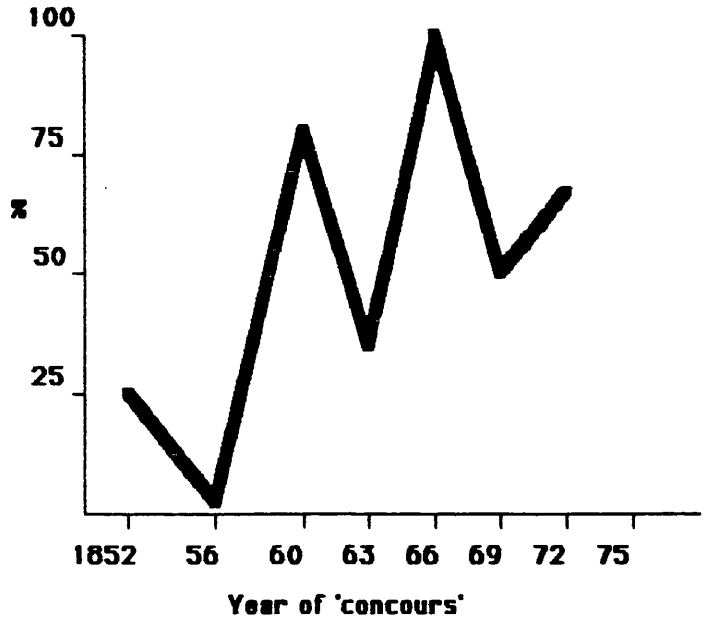
young men who conceived medicine in the new scientific way would be seen as more knowledgeable, and their selection inevitable. This was more the product of the blending in of the values of a few into a shared belief system, than by social forces or as the by-product of social ends. In other words, the small group of physician-scientists who were campaigning for a 'scientific' transformation of medicine from the late 1840's to the early 1860's, had, by the mid-1870's, succeeded in implementing their ideological reform. After much hard work, and the support of older influential patrons such as Rayer, they had infiltrated the Faculty, and were now taking control.

The 1872 'concours d'agrégation' for the medical and medico-legal section is a case in point. These competitions were held every three years, therefore this was the first one since the war. The jury had as president A. Tardieu (1818-1879), dean during the 1860's. The judges included four professors: P. E. Chauffard (1823-1879), A. L. Hardy, A. Gubler and Vulpian. The last two were members of the 'Société de Biologie'. S. Jaccoud sat for the 'agrégés', while the pediatrician H. L. Roger(1809-1891) represented the Academy of Medicine[41]. One can see that out of a jury of seven, two were members of the 'Société de Biologie' and one, Jaccoub, was certainly of the same school of thought, therefore 3 of the 7 judges were clearly of the "New School". The medical press raved as to the quality of the candidates[42]. Of the thirteen applicants, the seven selected included: Hayem, Lancereaux, Bergeron, Duget, Damaschino, Fernet, Rigal[43] . The first four were members of the second generation of members of the Society, those who joined after the 1864 restructuring of its membership. This younger group was made up of the students of first generation members. The diagram below shows the success of applicants who were members of

[41]Comité pour six places d'agrégés, *La Revue Scientifique*, 1872, p.669.
[42]LEGRAND: A propos du concours de l'agrégation, *L'Union Médicale*,1872, pp.673-675.
[43]*Op. cit.* 5, p.192.

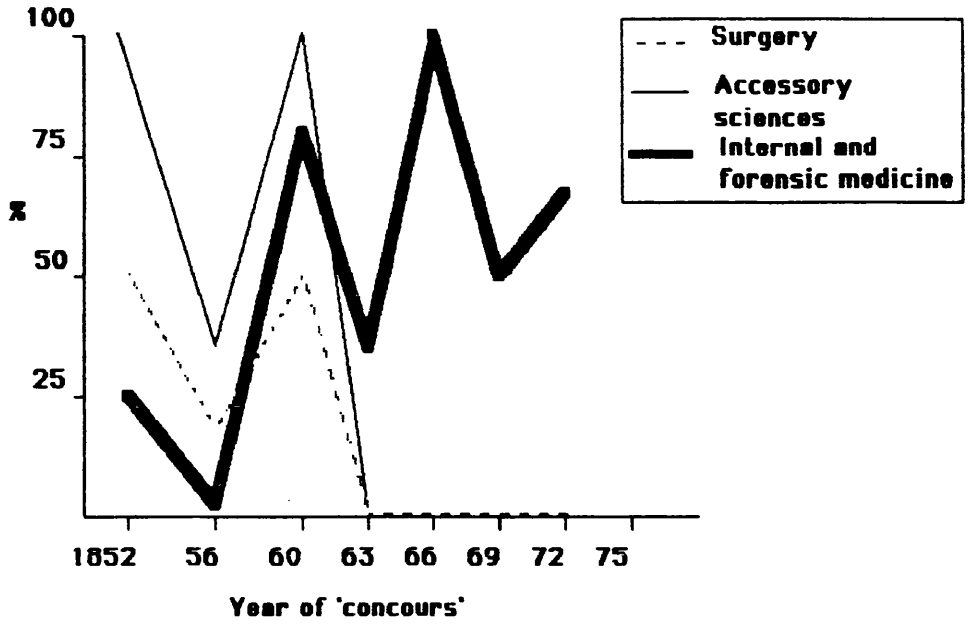
the Society competing in the Internal Medicine and Forensic Medicine 'concours' (i.e.: successful members divided by the total number of applicants belonging to the Society).

DIAGRAM 3.1: Percentage of Members of the 'Société de Biologie' Successful at the 'Concours d'Agrégation' of Internal and Forensic Medicine (1852-1875)




It is important, however, to realize that from 1864 on, the nature of the membership of the Society had changed. In fact, the first generation of members to run for 'agrégation' were competing in all three sections of the agregation competition: Internal and Forensic Medicine (the largest 'concours'), Surgery and Obstetrics, and Accessory Sciences. If one analyses the make-up of the candidates to the various 'concours' from 1852-1875, one finds that the post-1864 generation only competed in the Internal and Forensic Medicine section. The following diagram illustrates this point.

DIAGRAM 3.2: Percentage of Members of the 'Société de Biologie' Successful in All 'Concours d'Agrégation' (1852-1872)




This change is secondary to the increased emphasis by the Society on experimental physiology, normal and pathological histology, and clinical medicine. The number of physician members who were surgeons and chemists steadily decreased over the years or turned to other institutions for jobs rather than the Medical Faculty. The consequence was that the students of the first generation members from these specialities did not join the Society. In physiology, the Society was Bernardian in composition, so Bernard's students tended to find jobs in the Science Faculties or the 'Collège de France'. The physiological school settled in the Faculty was headed by Longet and his student Béclard, neither of whom were members of the Society. Therefore, the 1860's witnessed the first fragmentation of the membership of the Society on interest lines and schools. However, the emphasis on laboratory research by Society members is reflected in their control of two thirds of the laboratories in Paris. The accompanying table was compiled from the medical student guide published by the *Progrès Médical*.

**TABLE 3.3: Personnel of Paris Medical Laboratories in 1873.**

Faculty of Medicine
Histology: head: **Robin**(*); assistant: **Legros**
Physiology: head: Béclard; assistant: **Muron**
Experimental pathology: head: **Vulpian**; assistant: **Hayem**
Pathological anatomy: head; **Charcot**; assistant: **Carville**
Therapeutics: head: **Gubler**; assistant: **Laborde**
Pharmacology: head: **Regnauld**; assistant: **Hardy**

Hospital Laboratories
Hôtel-Dieu: head: Béhier; assistants: **Hardy** and **Lieuville**
Charité: head: **Cornil**; assistants: Pozzi and Coyne

Assistance Publique
Histology: Grancher

Collège de France
Physiology and histology: heads: **Bernard** and **Ranvier**;
assistants: Debove, **Malassez**, **Renault**

Science Faculty
Physiology: head: **Bert** and Gerant;
assistants: **Jolyet** and Blanche

(*): Individuals whose names are in **bold** print
were members of the 'Société de Biologie'

In summary, a study of the increased prevalence of first and second generation members of the 'Société de Biologie' at all levels of the academic hierarchy demonstrates the increased popularity of laboratory medical sciences in the Paris Medical Faculty from the 1850's to the early 1870's. For Charcot, this involved his becoming a member of the very select group of Faculty professors, and for Vulpian, his selection as Dean.

In 1872, Vulpian was offered Rayer's Chair of Comparative Medicine and Experimental Pathology. Though some opposed his transfer, on the grounds that Faculty members were discussing the need to return to 'concours' for the selection of professors, the nomination did not create much controversy[44]. The chair had been officially vacant since 1864, though the physiologist E. Brown-Séquard had served as assistant lecturer between 1870 and 1872. This change was welcomed by Vulpian whose main

[44]LAUGIER: Lettre à la Revue Scientifique, *La Revue Scientifique*,1872, p.646.

scientific interest since his days in Flourens' laboratory had been experimental physiology and pathology. Consequently, the chair of Pathological Anatomy became vacant.

Charcot, Vulpian's long-standing acolyte, replaced him as Professor of Pathological Anatomy in January 1873. The same year, he was made a member of the Academy of Medicine, though his election did not please everyone. Some claimed that he was elected only by a one vote majority[45]. Bourneville, in his *Progrès Médical*, was quick to defend his mentor, and showed that in fact Charcot had been selected by a 13 vote majority[46]. Therefore, at the age of 48, Charcot joined many other members of the 'Société de Biologie' at the highest levels of the academic and professional hierarchies. Only the Dean's office was not yet in the hands of the members of the Society.

In March of 1875, rumours started to circulate that Würtz would resign to accept a Chair of Organic Chemistry created for him at the Faculty of Science[47]. The National Assembly granted the funds for the Chair in April and Würzt stepped down the following October[48]. It was reported that the position was offered to the surgeon A. L. Gosselin (1815-1887), but he and many others declined, because higher education in general and medical education in particular were going through difficult times[49]. New provincial faculties were soon to be created in Bordeaux and Lyon; but more worrisome was the possibility that the clergy could establish competing medical schools in many cities, including Paris. The law adopted in 1875 on the freedom of education authorized almost any one to open such schools. The clergy, like in 1868, had campaigned for this change and

[45] Journal des Connaissances Médico-chirurgicales, Dec. 1873.
[46] BOURNEVILLE: Comment on écrit l'histoire, *Le Progrès Médical*, 1873, pp.354-5
[47] *Le Progrès Médical*, 1875, p.172.
[48] *Le Progrès Médical*,1875, p.216.
[49] *Le Progrès Médical*,1875, p.216

promised to open such schools to compete against the 'materialist' teaching of the Faculty of Paris[50]. Furthermore, the Faculty still had to be periodically closed or invaded by policemen because of student riots[51]. The November 1874 closure of the school was still vivid in the minds of everyone[52]. Vulpian apparently was approached by the Ministry in late October, 1875. He refused to accept, unless he was chosen by his fellow professors. The *Progrès Médical* saw Vulpian's request as a very wise one, because the "burden is considerable and the present circumstances will add further responsibilities to the new Dean"[53]. Initially the Minister refused, but the lack of other suitable candidates forced him to concede. In early December, Vulpian was presented as the first choice by the professorial assembly, and was installed in his new functions a few days later[54]. Therefore, by 1875, the Faculty was largely in the hands of members of the Société de Biologie. Not only did they compose 38% of the professorial body, but also with Vulpian's appointment, they had taken over the highest echelon: the Dean's office.

The early 1870's also mark the time when Charcot because involved in the reform movement. However, he did this in a particular and very indirect way. While Vulpian advised Würtz on issues related to the welfare of the Faculty of Medicine, Charcot supported the journalistic enterprise of his pupil Bourneville: *Le Progrès Médical*.

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[50]BOURNEVILLE: Le talon d'Achille, *Le Progrès Médical*,1875, pp.638-9.

[51]For police surveillance of the School of Medicine during this period, see: *Op. cit.* 6, pp. 209-39.

[52]BOURNEVILLE: Ouverture des cours de la Faculté - Incident Chauffard, *Le Progrès Médical*, 1874, p. 693, and BOURNEVILLE: Réouverture de l'Ecole de médecine - Encore M. Chauffard, *Le Progrès Médical*, 1874, p. 743.

[53]*Le Progrès Médical*, 1875, p.631.

[54]*Le Progrès Médical*, 1875, p.743.

## *Le Progrès Médical*

In this section we will review the first two years of Charcot and Bourneville's: *Le Progrès Médical; Journal de Médecine, de Chirurgie et de Pharmacie* (1873-1875). The importance of such a study stems from the fact that the weekly journal became "the official spokesman of Charcot's School"[55]. This will shed much light onto Charcot's rise to fame. First, we will establish who were the founders and original collaborators. This will testify again to the close relationship between Charcot and many members of the 'Société de Biologie'. Second, we will emphasize the importance the journal had in popularizing Charcot's writings, but more importantly the man himself. Lastly, we will examine the ideology of the paper and some of the medical reforms it supported.

Unfortunately, little has been written about the history of *Le Progrès Médical*[56]. Its editor in chief, Désiré Magloire Bourneville (1840-1909), had a great deal of journalistic experience when he founded the journal in June 1873. He was a collaborator of *Le Reveil*, a radical republican paper, *Le Mouvement Médical* and many other journals during the late 1860's[57]. In 1868 he set up *La Clinique Photographique de l'Hôpital Saint-Louis*, a journal that used the latest photographical techniques, and became *La Revue Photographique des Hôpitaux* in 1869, and subsequently *L'Iconographie photographique de la Salpêtrière* in 1876. However, *Le Progrès Médical* became Bourneville's most successful journalistic venture. The idea came from Charcot. Charcot

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[55] *Op. cit.* 3, p.364.

[56] LOEPER: Histoire du journal, *Le Progrès Médical*, 1922, pp.585-8, and RICHET: Aux temps héroïques de la médecine, *Le Progrès Médical*, 1922, p.589.

[57] LAROUSSE (ed.): *Le grand dictionnaire universel*, first supplement, p.406. Bourneville also collaborated during the 1860's with: *Le Panthéon*, *L'Industrie*, and *Le Journal de Médecine Mentale* [ PIERRE, PAUL: *Les hommes d'aujourd'hui*, p.13.].

actually set forth its objectives, planned its organization and also provided most of the original collaborators of *Le Progrès* [58]. Charcot was , to borrow Loeper's words, from the creation of the publication: "The star that had shown the way and guided the journal"[59]. Though the first issue came into being in a small dirty office close to the Faculty, the journal soon became popular, and had to move to larger quarters. *Le Progrès*, as it was commonly referred to, soon came to be synonymous with the medical "avant-garde"[60]. Charles Richet (1850-1935), who was a medical student in 1873, talked of the early days in these terms: "....Clearly, *Le Progrès Médical*, was one and the same as the 'young medicine' (la Jeune Médecine); one which relied both on the microscope and experimentation for help..."[61]. A study of the first collaborators reveals the composition of this 'avant-garde'.

The collaborators numbered 49 in 1873, and 59 the following year. For this two-year period, leading articles were provided by 71 different authors[62]. If one excludes from this group all interns, externs and foreigners, one finds that 17 out of the 21 older contributors were members of the 'Société de Biologie' (81%). This contrasted with the fact that out of the 8 professors who provided essays, only half were members of the Society: Charcot, Vulpian, Broca, and Verneuil[63]. This illustrates that some professors with no direct connections with the Society shared some of the convictions of its membership. In other words, Charcot and Vulpian shared ideals regarding medicine with individuals who for various reasons never became members of the Society. However, when it came to who

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[58] *Op. cit.* 56, p.585.

[59] *Ibid.*, p.585.

[60] RICHET: *Op. cit.* 56, p.589.

[61] *Ibid.*, p.589.

[62] 'Leading articles' are all lengthy published original works. However, for calculation each article in every issue was counted, whether it was the continuation of a previously published piece or not.

[63] The other main authors were: Behier, Gosselin, Richet, and Trelat.

were the leading promoters of progress in medicine, Bourneville had no hesitations, all were members of the Society[64]. In fact, Bourneville himself joined the Society in 1874, and his journal provided an account of every meeting.

In 1873, Bourneville discussed the preceding twenty five years of medical history in Paris in an editorial[65]. In his opinion, the period spanning from 1850 to 1868 had been one of wide-spread "intellectual atony" due to "...a fear that by asserting too freely one's opinions,... one may offend powerful individuals, and by doing so, compromise one's career"[66]. Nevertheless, he stated that during the preceding five years things had changed for the better. A new drive to push forward scientific research had arisen. This new movement was led by a few hospital physicians: Charcot, Parrot, Verneuil, and Vulpian, and two laboratory researchers: Ranvier, and Cornil[67]. Obviously, all were collaborators of the *Progrès*, four of them being in the top ten contributors: Charcot, Cornil, Parrot, and Ranvier[68]. One notices that Charcot was placed at the head of this party of reformers, all of whom were members of the 'Société de Biologie'.

The importance the *Progrès* played in providing mass appeal to Charcot and his teaching cannot be underestimated. The journal saw itself as a defender of student rights, and a promotor of medical progress, as its

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[64]BOURNEVILLE: Situation scientifique, *Le Progrès Médical*, 1873, p. 137.

[65] *Ibib.*, p.137.

[67] *Ibid.*, p.137.

[68] The top ten collaborators were: Charcot (34), Cornil (19), Bourneville (14), Chouffe (13), Ferrier (13, translation from English), Parrot (9), Peltier (8), Richet (8), Ranvier (7), and Rosapelly (7). The number in parentheses is the number of 'leading articles' published by each author between June 14 1873 and the end of December 1874.

name suggested[69]. Charcot, as we have shown above, was portrayed before its readers, many of them students, as one of the leading figures of the 'avant-garde'. His lectures served as the most common leading articles[70]. His books were advertized on the first page of the journal. New issues of the *Archives de Physiologie Normale et Pathologique*, which he had edited with Brown-Séquard and Vulpian since 1868, were advertized and generously reviewed[71]. Furthermore, his Sunday morning lectures at the Salpêtrière and the ones at the Faculty were given priviledged coverage. In fact, they always appeared at the top of the weekly list of lectures, and in larger and more eye-catching print than the others[72]. Editorial reviews of his teaching would present the teaching of the "éminent maître" in these terms: "There is no need for us to speak in praise of his teaching...", obviously suggesting its high quality[74]. The question is whether Charcot needed all this publicity? It appears he did. His clinical demonstrations at the Salpêtrière were attended only by a small group of interns and ex-interns[75]. In 1874, Bourneville reported that "except for the interns who spent much time at the Salpêtrière, few physicians know about this institution unique in the world"[76]. To which he added that though the facilities were deplorable the"...Ecole de la Salpêtrière enjoys an international reputation which honours our country"[77]. Charcot's lectures as Professor of Pathological Anatomy were not much more popular:

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69 For examples of the journal's defence of student rights during this period, see: BOURNEVILLE: Les bureaucrates de l'Ecole de médecine, 1873, pp.101-2; BOURNEVILLE: Bulletin du Progrès Médical: Aux étudiants, 1875, p.247; BOURNEVILLE: Les bibliothèques des Facultés: Nouvel impôt sur les étudiants, 1874, p.31; BOURNEVILLE: Rapport de M. Bert à l'Assemblée nationale; situation médicale, 1874, pp.298-9; and BOURNEVILLE: Le secrétariat de la Faculté de médecine, 1875, p.254.

70See foo note 68.

71 *Le Progrès Médical*, 1873, p.215.

72For examples see: La chronique des hôpitaux, *Le Progrès Médical*, 1873, pp.314 and 341.

74BOURNEVILLE: Cours d'anatomie pathologique: M. Charcot, *Le Progrès Médical*, 1875, p.192.

75DEBOVE: J.-M. Charcot, *Le Bulletin Médical*, 1900, p.1390.

76BOURNEVILLE: Hospice de la Salpêtrière; conférences cliniques de M. Charcot, *Le Progrès Médical*, 1874, p.742.

77 *Ibid.*, p.742.

"Professor Charcot started his series of lectures yesterday. In the audience, which is increasing in number every day, one could find the usual crowd of interns and ex-interns"[78]. It is clear then that Charcot's teaching in the early 1870's had not yet achieved the local, or international popularity, it would later. What was the exact role the *Progrès* played in Charcot's rise to fame is difficult to assess with precision, however, it is hard to believe that it was negligible.

As Loeper emphasized, the *Progrès* "...was not only a scientific journal, it wished, and succeeded in covering current social issues, and promoting reform"[79]. In the first two and a half years, it not only defended the rights of students, but voiced its opinion on most controversial subjects having any impact on medicine. The editorial committee supported the creation of new Medical Faculties[80]. The *Progrès* campaigned for a greater state support of laboratories and scientists[81]. It advocated the need for some reform of the medical 'concours', nevertheless upholding that they were the only fair and liberal means of promotion[82]. They called for the need for an official teaching of psychiatry[83]. In summary, on most of the important contemporary debates, the *Progrès* freely expressed its opinion, which consisted in advocating changes and supporting so-called 'liberal' reforms (see caricature 1). From the first issue, it also asserted its anticlerical position, which would ensure a radical republican reputation to the journal[84]. This attitude towards the clergy was very clear in its detailed review of the 1875 debate on higher education, in which it officially

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[78] *Ibid.*, p.742.

[79] LOEPER: *Op. cit.* 56, p.589.

[80] BOURNEVILLE: Des facultés de médecine provinciales, *Le Progrès Médical*, 1873, pp. 29 and 126.

[81] BOURNEVILLE: Des récompenses nationales, *Le Progrès Médical*, 1874, pp.425-6; and BOURNEVILLE: Situation médicale, *Le Progrès Médical*, 1874, p.299.

[82] BOURNEVILLE: Jury de l'agrégation, *Le Progrès Médical*, 1875, p.41.

[83] BOURNEVILLE: Asile Sainte-Anne: suspension des conférences cliniques, *Le Progrès Médical*, 1874, pp.125-6.

[84] BOURNEVILLE: Composition du Conseil supérieur de l'Instruction publique, *Le Progrès Médical*, 1873, pp.4-5.

endorsed Louis Blanc's extreme leftist position[85]. This was not surprising with Bourneville's political background, and the fact that two of the *Progrès'* patrons were friends of Léon Gambetta: Charcot himself, and his pupil Cornil[86]. Created at the time when only *La Gazette des Hôpitaux* was a widely read medical journal, it soon became a popular and powerful propaganda tool for the most 'progressive' members of the Paris medical world, and Charcot in particular[87] .

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[85]TEINTURIER: La liberté de l'enseignement supérieur, *Le Progrès Médical*, 1875, p.6.

[86]GOLDSTEIN: *French psychiatry in social and political context...*, 1978, p.223.

[87]LOEPER: *Op. cit.* 56, p.585.

LES HOMMES D'AUJOURD'HUI

DESSINS DE DEMARE

BUREAUX : 48, RUE MONSIEUR-LE-PRINCE, PARIS

# Dr BOURNEVILLE


Caricature 1: Dr. Bourneville, *Les Hommes d'Aujourd'hui*, vol. 3, **157**.

# 4

# REFORM IN ACTION; CONFLICTING ASPIRATIONS (1875-1881)

The most striking feature of the second half of the 1870's is the implementation of most of the medical reforms advocated during the previous fifteen years. In this section, we will review the role Vulpian, the more unified Professorial Assembly and certain physician-politicians played in bringing about medical reforms. However, following the take over of the Faculty by medical reformers and the Government by republicans, conflicting aspirations started to appear. The initial cohesion disappeared, and subtle ideological differences surfaced, while clashing social ambitions ensured a fragmentation of the elite medical community. We will review three examples of this new trend: the creation of the Chair of Mental Pathology, the anticlerical campaigns of the Progrès Médical and Vulpian's resignation as Dean of the Faculty.

## Reform in Action

The period between 1875 and 1881 saw an increased representation of physicians at all political levels. In the first chapter we discussed the two pyramidal hierarchies which made up the medical world of Paris (see Appendix II). As you will recall both were under different ministerial control. The Faculty was under the control of the Ministry of Education (Instruction Publique) accountable to the National Assembly. The control of

this legislative body gradually fell into the hands of republicans following their success in the February/March 1876 election. The October 1877 election secured a republican majority for the first time since the Franco-Prussian War. The importance of this change for medicine was due to two factors: the increase in the number of physicians elected, from 33 in 1871 to 39 in 1876; and more importantly, the election of four particular individuals[1]. They ensured that issues related to the Medical Faculty and the 'Assistance Publique' were not neglected. Three of them were members of the 'Société de Biologie': Paul Bert, Victor Cornil, and Henry Liouville (1837-1887)[2]. Cornil and Liouville had both been interns at the Salpêtrière in the 1860's. The last of this group was Georges Clemenceau, protégé of the recently elected Senator Charles Robin. Clemenceau had also previously been an active promoter of medical reform in the Municipal Council[3]. As the *Progrès* pointed out at the end of 1877, all the physicians elected were republicans, except for two[4]. They formed a new group on the previous model, this time named: "Réunion des Médecins Députés-Sénateurs". Liouville was made the first secretary of this strong pressure group, where republican ideas were shared by most[5].

The 'Assistance Publique' was under the control of the 'Préfet de la Seine', and the Minister of the Interior who was accountable to the National Assembly. The Prefect reported to another elected body: the Municipal Council of the Seine. In fact, the annual budget of the 'Assistance Publique' had first to be approved by the Council before being submitted to the Ministry. In other words, this assembly could, and did have a significant authority on the functioning of the various institutions under

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[1]Médecins députés. *Le Progrès Médical*. 1876. pp. 162 and 204.

[2]Liouville became a member of the Society in 1869, the year following his internship with Vulpian at the Salpêtrière.

[3]Clemenceau, from 29 November 1874 to March 1876, was the president of the Municipal Council.

[4]Médecins députés, *Le Progrès Médical*, 1877, p.795.

[5]Réunion des médecins députés-sénateurs, *Le Progrès Médical*, 1876, p.476.

the control of the welfare agency. In 1876, Clemenceau stepped down as the leading medical reformer in the Council, to be replaced by who else but Bourneville. For the Faculty, and more importantly for Charcot, this provided a strong ally at the highest level of decision, on all issues related to hospital policy in Paris. Bourneville, as we will see, was able to promote effectively in the Council many reforms. Furthermore, he could use his journal to promote his views on what the Council should decide on certain issues: a powerful tool of propoganda indeed.

These changes appear to have been at the origin of a wide spread increase in public awareness of medical issues. As Bourneville wrote in June 1876: "Today, all issues related to higher education, and especially medical training, interest public opinion greatly"[6]. In another editorial the following month, he added: "Times have changed, and men also (compared to the first half of the decade, referred to as "l'ordre moral"); we have found in our representatives to the National Assembly and the Senate active and competent advocates..."[7]. In other words, for reformers like Bourneville, the increased power of republicans and of certain physicians in the two chambers implied that reforms would finally be on their way. Conserning the trend in public opinion, he stated: "We should not only rejoice in this movement, but we must encourage it with all our might; numerous are in fact the reforms to be achieved in the near future"[8].

During the ensuing few years, the politically active physicians secured the realization of many reforms, and forced the Government to examine very controversial issues. In June 1876, Liouville, "our friend" as Bourneville called him, pushed the Government to get its act together and

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[6]BOURNEVILLE: Agrandissemnet de l'Ecole de médecine, *Le Progrès Médical*, 1876, p.430.

[7]BOURNEVILLE: Rétablissement des cours cliniques..., *Le Progrès Médical*, 1876, p.559.

[8] *Op. cit.* 6, p.430.

provide the funds requested for such a long time to improve the facilities of "the largest Medical Faculty in the world which is suffocating in its present quarters"[9]. Two months later, the general budget of the Ministry of Education was voted on. It included special provisions for the reconstruction of the Paris Medical Faculty. The total ministerial budget showed an incease of 25% to a total of 39 million francs. This illustrated the increased political will to reform education in general. Furthermore, by providing 6 million francs for the reconstruction of the Medical Faculty, the Government stated its view as to the importance of improving medical education[10]. Minor improvements were also pushed forth , some with more success than others. Clemenceau, while still a member of the Municipal Council, had called for the creation of a clinical chair for the teaching of diseases of the mind. As a member of the National Assembly, he reiterated his plea, and the 1877 budget included provisions for a new Clinical Chair "de Pathologie Mentale et des Maladies de l'Encéphale". In 1876, Liouville, following in Bert's footsteps, asked for the annual salaries of professors to be increased from 13,000 to 15,000 francs. However, he and his mentors had to wait until 1879 for a rise in professorial income[11].

Cornil and Liouville campaigned for even more drastic reorganizations. They presented a complete plan to reform medical education to the 'Réunion des Médecins Députés-Sénateurs'[12]. The plan obviously followed the lines of the project developed by older Faculty members, many of whom were 'first generation' members of the 'Société de Biologie'. It was mostly derived from Broca's report to the Faculty on the restructuring

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[9]Liouville like Cornil and Bourneville was an intern at the Salpêtrière in the 1860's, all were members of the 'Société de Biologie'; furthermore, all were contributors to the *Progrès* since its creation. Liouville, in 1877, was also vice-president of the 'Société Anatomique', presided over by Charcot since 1872 [ *Op. cit.* 6, p.430].

[10]The 39 million francs did not include special funds for the Faculty's reconstruction [BOURNEVILLE: Le budget de l'Instruction publique, *Le Progrès Médical*, 1876, p. 569-70].

[11] *Le Progrès Médical*, 1879, p.14.

[12] Réunion des médecins-législateurs, *Le Progrès Médical*, 1876, p.808.

clinical teaching (1875), which had been approved by the Assembly of Professors in January 1876[13]. Clinical teaching in Paris had always been poorly structured and largely in the hands of hospital physicians who had no Faculty appointments. Therefore, much was indirectly under the control of the 'Assistance Publique'. Cornil, aware that the traditional rivalry between the 'Assistance Publique' and the Medical Faculty could hamper the implementation of reforms, asked President MacMahon to study how one could do away with the old antagonism[14]. In its editorial on the subject, the *Progrès* went as far as to ask for: '...the attribution to the Faculty of the scientific, material and economic control of all hospitals"[15]. The Government took this proposal seriously and created a commission to study "the question of the relationship to be established between faculties and hospital administrations"[16]. At the same time, many physicians were campaigning for the creation of other new clinical chairs.

In the Municipal Council, reformers could also have a great impact on the medical world. Bourneville, from the time of his election to the Council in early 1876, was hard at work promoting general reforms he had campaigned for in his journal for many years, requesting improvements at the Salpêtrière and Bicêtre Hospices in particular. As early as 1865, he campaigned for the creation of libraries for interns in the various teaching hospitals[17]. They were first established on the initiative of a few interns in 1866 at Bicêtre and in 1868, at the Salpêtrière. They were soon created in many other hospitals. However, they lacked funds[18]. Bourneville, the newly elected Councillor, secured funds for their maintenance out of the

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[13]Faculté de médecine, *Le Progrès Médical*, 1876, p.8-9.

[14]TEINTURIER: Les hôpitaux à la Faculté, *Le Progrès Médical*, 1876, p.742.

[15]*Ibid.*, p.743.

[16]"Commission mixte étudiante: la question des rapports à établir entre les facultés et les administrations hospitalières"[*Ibid.*, p.742].

[17]BOURNEVILLE: Une réforme dans les salles de garde..., *Le Mouvement Médical*, 1865.

[18]For the early history of these libraries, see: BOURNEVILLE: Des bibliothèques dans les hôpitaux, *Le Progrès Médical*, 1878, pp.385-6.

budget of the 'Assistance Publique'. In January 1878 the sum of 12,000 francs was voted for this purpose[19]. This was the first of his many successful crusades. In 1877, he was made the official reporter for the Council's commission reviewing the budget of the 'Assistance Publique'. From the recommendations of the commission, one can clearly see Bourneville's influence[20]. Some of the issues promoted by the *Progrès* found their way to the document. The most radical was the assimilation of all employees of the 'Assistance Publique' to City of Paris' personnel. However, of greater interest to us were the recommendation that schools be created for lay nurses at the Salpîetrière and Bicêtre, and that various reforms be brought to these institutions.

Bourneville, the "anticlerical type", to borrow Léon Daudet's words, had been campaigning for many years for the replacement of nuns by lay health workers in hospitals[21]. Anticlerical statements had abounded in the *Progrès* since its creation. He first proposed the training of lay 'infirmiers' and 'infirmières' in 1875[22]. In his 1877 report to the Municipal Council, he asked for the immediate creation of schools to train such workers. The synchronism of this request with Gambetta's famous speech: "Clericalism, that is our enemy", is no accident. The late 1870's were a time of increased campaigning by militant republicans against the power of the Catholic Church. Bourneville's request to create such lay schools must be seen as part of this general movement. As we will see later, two schools were created, one at the Salpêtrière and one at Bicêtre in 1879.

Bourneville's 1877 recommendations to the Council for many improvements to the Salpêtrière and Bicêtre included: an increase in the

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[19]Projet de délibération, *Le Progrès Médical*, 1878, p.74.
[20]Budget de l'Assistance publique, *Le Progrès Médical*, 1877, p.896.
[21]DAUDET: *Devant la douleur...*, 1915, p.27.
[22]BOURNEVILLE: Assistance publique; les infirmiers des hôpitaux, *Le Progrès Médical*, 1875, p.450.

salaries of the head pharmacists and accountants of these two institutions, the provision of better bathing facilities at the Salpêtrière, and lastly the establishment of new 200-bed paediatric services at the Salpêtrière and Bicêtre[23]. Bed creation at Bicêtre is significant, because Bourneville became head of the new paediatric section of this Hospice in 1879 . Bourneville was not behind all these recommendations, many had been proposed by the 'Conseil de Surveillance des Asiles', however, some were clearly of his personal initiative, such as the interns' libraries, while others were singled out by him as priorities because of his intimate knowledge of the institutions and issues.

Though the *Progrès* makes no mention of it, the year following Bourneville's election, Charcot was granted facilities by the 'Assistance Publique' which he had repeatedly requested for over ten years. These improvements included the construction of a pathology laboratory and museum, a small chemistry lab, and a photography workshop[24]. However, Charcot's 1880 opening lecture reprinted in the *Progrès*, provides some insight as to who was behind these changes. At the time of the lecture the 'Assistance Publique' had further agreed to support the setting up of an out-patients clinic at the Hospice. Charcot talked in these terms of all the changes implemented since 1878: "I am happy to inform you that all the projects which had been requested in vain for many years have in the past two years, somehow by enchantment, become reality"[25]. To which he added that he had to thank the administration of the "Assistance Publique', and the eager and friendly support of the Municipal Council. In a footnote to Charcot's acknowledgements, Bourneville clearly states that these improvements were secondary to his repeated requests in 1877 and 1880

[23]BOURNEVILLE: *Op. cit.* 20, p.896. New bathing facilities were also asked for La Pitié and Saint-Antoine hospitals. A paediatric service was also requested for the 'des Forges' Hospice.

[24]Hospice de la Salpêtrière: M. Charcot, *Le Progrès Médical*, 1878, p.875.

[25]BOURNEVILLE: Hospice de la Salpêtrière: réouverture...,*Le Progrès Médical*, 1880, p.969.

to the Municipal Council[26]. It is therefore clear that Charcot had benefited greatly from his pupil's political zeal, and that in fact there had been no 'enchantment' but rather much hard dedicated work on the part of Bourneville.

When one studies the late 1870's, one is struck by the number of medical reforms finally introduced. Vulpian as Dean certainly played a large role in their realization. He was backed by a more unified professorial assembly, many teachers sharing the same views as to what should be changed or improved[27]. Vulpian was an active promoter of a reformation of the School, both physically and in its teaching. Furthermore, it appears that he was driven by a thirst for fame and power tempered only by a will to do good. As he stated, following his election to the Academy of Sciences in May 1876:

> "I am delighted to have come out the victorious champion of this contest. I am honored because it is the culmination of my scientific career. Furthermore, with this title, I realize my life-long ambition: To be as powerful as possible, to do as much good as possible"[28].

Vulpian's deanship saw the implementation of major reforms in the Faculty. First, the building of the 'Ecole Pratique', the large scientific institute requested by Würtz in 1870, was started. Second, twenty new laboratories were opened. Third, the teaching of anatomy was completely

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[26] *Ibid.*, p.969.

[27] Vulpian summarized in his 1878 annual report to the Ministry, what had been the " programme during his mandate as dean": "Pour développer l'esprit scientifique chez ceux qui veulent étudier la médecine, il est indispensable de leur fournir les moyens d'observation et d'expérimentation qu'ils ne peuvent trouver que dans les hôpitaux et dans les laboratoires"[Archives Nationales, AJ[16] 6566 (Vulpian)]. From the reading of his reports (1875 to 1879), it is clear that Vulpian was backed by the professors of the Faculty, and furthermore that they were able to get much of what they requested from the Government.

[28] M. le Professeur Vulpian, *Le Progrès Médical*, 1876, p.411. In this we find an echo of the ambitious young Vulpian saying to his mother: "...I promise you that I will make our name famous" [CAMUS: *Vulpian*, 1913, p.733].

restructured. Forth, 'l'Hôpital des Cliniques', the first hospital to be directly under the control of the Faculty, was built. And lastly, five new clinical chairs were created: psychiatry, paediatrics, urology, dermatology and syphilology, and ophthalmology[29]. Most of these reforms had been advocated for years, but with Vulpian as Dean, a more unified Professorial Assembly and the control of Government in the hands of republicans, they could be implemented.

## The Creation of the Chair of Mental Pathology

This period was a time of many reforms, including the creation of different chairs for specialized clinical teachings. In this section, we will present the early history of the "Chaire de Pathologie Mentale et des Maladies de l'Encéphale". This will illustrate many important points; namely the difficulty of implementing changes because of conflicting aspirations, Bourneville's ability to defend Charcot's interests using both his journal and his position as Municipal Councillor, and lastly, why Charcot did not compete for this Chair because he was not an alienist, but a neuropathologist.

As part of the general movement to reform clinical teaching discussed in the previous section, the teaching of mental diseases was presented as an area of priority. It became a public issue after the prefectoral order of March 1874 forbidding the only course on the subject in Paris to take place[30]. Following public pressure as to the indecency of having mad patients presented in clinical demonstrations, the course given by P. Lucas,

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[29]ROGER: Centenaire de Vulpian. *Archives de Neurologie*, 1927, p.1101.

[30]Asile Sainte-Anne: Suspension des conférences cliniques. *Le Progrès Médical*. 1874, p.125-6.

V. Magnan and Bouchereau at the Sainte-Anne Asylum was cancelled. The *Progrès*, and other medical journals, denounced such censorship, but to no avail[31]. Clemenceau, still a Municipal Councillor at the time, promoted the reinstatement of this teaching and the creation of a Chair of Mental Diseases at the Faculty. The Prefect, Ferdinand Duval, did not give way. Three reports produced by Faculty professors during these years on the desirable changes in the Faculty recommended the creation of this chair[32]. Again, this is an example of the general phenomenon discussed in the previous section, that many 'liberal' reforms required a change in the political make up of the various elected bodies, or their 'republicanization' to borrow a popular expression at the time.

Two years after the cancellation of clinical lectures at the Sainte-Anne Asylum, political changes occurring in the spring of 1876 permitted things to move forward. The new republican Minister of the Interior, E. de Marcère, after a meeting with Liouville and Robin, approved the restoration of clinical teaching of mental diseases not only at Sainte-Anne, but at Bicêtre and the Salpêtrière as well[33]. Clemenceau, then a deputy, advocated the creation of a Chair of Mental Pathology in the National Assembly, in accordance with the earlier will of the Municipal Council. He argued that, based on the 1838 Insanity Law, any certified physician could deprive an individual of his rights by diagnosing him or her as mad, and therefore it was imperative that all graduates should have some psychiatric training. His campaign was successful, and the 1877 budget of the Ministry of Education was amended to provide funds for the new

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[31]Ibid., p.125-6; and BOURNEVILLE: Rétablissement des cours cliniques dans les asiles d'aliénés, Le Progrès Médical, 1876, p.559.

[32]The ones by Béclard, Broca and Gavarret.

[33]*Op. cit.* 10. p.559. However, though the Prefet at first refused to obey the ministerial request, it was accepted four months later in December 1876.

chair[34]. This was however to be the beginning, rather than the end, of a long saga.

The Faculty was consulted on the selection of the new professor[35]. From the minutes of the Faculty's Professorial Assembly, it is clear that the selection of the new professor was "embarrassing" for both the Faculty and the Minister[36]. The teaching of mental illness was still clouded with popular misgivings. The Faculty elected to create a committee to review all potential candidates. The committee was composed of: Lasègue, Charcot, Hardy, Potain, Sée, and Tardieu[37]. Journals backed different candidates, though the *Progrès* did not support any in particular. However, it opposed the favoured candidate of the *Gazette des Hôpitaux*, Legrand du Saulle[38]. Whether Charcot's discussed candidacy was the reason for the *Progrès* impartiality can only be speculated. As Le Sourd pointed out, this choice would be somewhat in disagreement with the intended purpose of the new chair, Charcot not being an alienist[39]. In fact, Le Sourd did not present Charcot as a possible candidate, but rather as someone whose name was mentioned, should the chair be converted into one of neuropathology.

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[34] *Ibid.*, p.570.

[35] Procès verbaux des professeurs de la Faculté de médecine (1877-1879), Archives Nationales, AJ[16] 6258, pp. 41-2 (24/2/1877), pp.93-4 (26/3/1877), pp.109-13 (24/5/1877), p.145 (5/7/1877), and p.339 (28/3/1878).

[36] *Ibid.*, p.42.

[37] *Ibid.*, p.42.

[38] LE SOURD: Une chaire nouvelle à la Faculté de médecine..., *Le Progrès Médical*, 1877, pp.89-90.; and Candidats à la nouvelle chaire de pathologie mentale, *Le Progrès Médical*, 1877, p.157.

[39] *Ibid.*, p.89. There has been some confusion in recent historical literature about Charcot's medical speciality. Goldstein writes of Charcot as if he was a psychiatrist, she states: "Charcot was not the only *aliéniste* of his generation to attempt to make sense of hysteria"[GOLDSTEIN: *Consol and Classify*..., 1987, 328]. Not only does the debate on the selection of the new Professor of Mental Pathology show clearly that he was not seen by his peers as an alienist, but furthermore he was a physician to the Salpêtrière and not an alienist of this institution, as we reviewed in the first chapter, and he himself would include only one article with Magnan under the heading of 'Psychiatrie' in his voluminous *Exposé des Titres Scientifiques* submitted for his candidacy to the 'Académie des Sciences' in 1883 [CHARCOT: 1883, p.167].

When the full title of the chair was made public in April 1877, Vulpian and the Professorial Assembly were taken by surprise. The name of "Chaire Clinique de Pathologie Mentale et des Maladies de l'Encéphale" was seen by them as ambiguous. It seemed to suggest that it was not only a chair of psychiatry, but also of neuropathology. Vulpian formally opposed this designation in writing to the Minister[40]. Vulpian's position stemmed from the fact that only alienists had been considered as candidates, and neuropathologists, such as his friend Charcot, had not been considered from the start[41]. Though the name of the chair was never changed, the Faculty did not modify its selection of candidates, all of whom had a strong psychiatric bend to their training and practice. On March 25, the four leading candidates had had their curriculum vitae presented to the Professorial Assembly. Each candidate was sponsored by a Professor. Charcot supported Benjamin Ball[42]. In late March, the Faculty presented its final list to the Ministry, its first choice was Benjamin Ball, followed in order by V. Magnan, A. Voisin, and Foville[43].

The choice of Benjamin Ball (1833-1893) was ratified by the Minister on 18 April 1877. Ball had completed his medical training in the late 1850's. He was an intern at the Salpêtrière in the service of Moreau de Tours. In 1866, he had transcribed Charcot's lectures on the diseases of the elderly[44]. The same year, he became an 'agrégé' of the Faculty, and a 'médecin des hôpitaux'. He also was made a member of the 'Société de Biologie' in 1862. He was mostly known for his work in pathology, especially in neuropathology. However, as Le Sourd stated in one of his

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[40] *Ibid.*, p.93.

[41] *Ibid.*, pp. 111-2.

[42] The other candidates and their sponsors were: Magnan (Hardy), Foville (Lasègue), and Voisin (Chauffard) [*Ibid.*, p.55].

[43] *Le Progrès Médical*, 1877, p.258.

[44] CHARCOT: *Leçons cliniques sur les maladies des vieillards et les maladies chroniques*, 1866.

editorials: "...as an alienist he seems to lack authority"[45]. It appears that his credentials in the field came largely from his success between 1875 and 1877, as responsible for the Complementary Course in Mental Diseases instigated by Rayer in 1863. What relationship existed between him and Charcot is not clear, but Charcot strongly supported his candidacy stating that the new professor should be a "man with extensive and solid training in the other branches of medical pathology"[46]. However, whatever friendship existed between the two men prior to Ball's selection, the events that followed made sure it vanished forever.

In mid October, it was rumoured that Ball's new clinical service, on the order of the Minister of the Interior, would be located at the Salpêtrière[47]. The Progrès was quick to point out that all rules of decent conduct had been broken, and furthermore, that the Salpêtrière being an institution for women only, it was not suited for the Faculty's teaching of mental diseases. Bourneville's journal, in its first editorial on the subject, sarcastically suggested that Ball was the object of ministerial favours. As it suggested, this could only explain why Ball was promised to have in two weeks "... what one of our most illustrious mentors (read Charcot), has in vain been requesting for the past ten years"[48]. This accusation of favouritism, and the following week's challenge: "Cela n'est pas fait!", were to ignite a heated and bitter polemic[49].

Ball's case was soon to be backed by another medical journal: *La France Médicale*. In its first editorial, the journal claimed that the organization of Ball's service at the Salpêtrière should not be more difficult than in any

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[45] *Op. cit.* 38, p.65.
[46] *Op. cit.* 35, p.59, and CORLIEU: *Centenaire de la Faculté de Médecine de Paris*, 1896, p.398.
[47] La nouvelle chaire de pathologie mentale..., *Le Progrès Médical*, 1877, p.765.
[48] *Ibid.*, p.765.
[49] La nouvelle chaire de pathologie mentale..., *Le Progrès Médical*, 1877, p.782.

other hospital[50]. The *Progrès* replied that the "harmonious" organization of every service at the Salpêtrière would be destroyed by the creation of a new one[51]. In the following editorial, the rival journal claimed that personal grievances should not stop the urgent introduction of the new teaching[52]. Clearly, personal considerations were at play. Ball sent a letter to Bourneville on 17 October, referring to the accusation of ministerial favouritism as slanderous[53]. Bourneville retorted mockingly, that Ball was ungrateful to the minister. For Bourneville, Ball's ingratitude was even more despicable since he had not even consulted the Dean or Charcot on the matter, both still out of town for the summer holidays. Bourneville also despised Ball for not having any qualms about taking certain beds from his two mentors: Charcot and Moreau de Tours[54]. He saw it as a blatant attack against his worshipped mentor and protector.

On the issue of taking some beds from Charcot's service to create the new service, *La France Médicale* replied that Charcot had so many beds that this should not be a problem. They claimed that his service included 555 beds, which to them was disproportionately large when compared to Luys' 85-bed service in the same hospital[55] . Bourneville was quick to state that the calculation were erroneous. In fact, Charcot's service was made up only of 168 beds, and Luys', of 128. Furthermore, he ended his editorial by stating: "To deprive men who by their dedication to science, deserve the highest consideration and universal respect is supremely unfair"[56]. The *Progrès*, backed by the *Gazette des Hôpitaux* then turned to promoting the Sainte-Anne Asylum as the only satisfactory

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[50] *La France Médicale*, 17 Oct., 1877.
[51] Encore la chaire de pathologie mentale...., *Le Progrès Médical*, 1877, p.789.
[52] *La France Médicale*, 20 Oct., 1877.
[53] BOURNEVILLE: La chaire de pathologie mentale, *Le Progrès Médical*, 1877, p.794.
[54] *Ibid.*, p.794.
[55] *La France Médicale*, 1877, p.87.
[56] BOURNEVILLE: Les erreurs de la France Médicale, *Le Progrès Médical*, 1877, p.846.

institution for the new clinical chair[57]. Though some opposed the establishment of teaching in an asylum, Bourneville argued that this was due to a general misunderstanding as to the true purpose of the chair because of its ambiguous title :

"Some will say that the title of the chair, 'of Mental Pathology and Diseases of the Encephalon', precludes the establishment of the teaching of this subject in an asylum where there are only mad patients. This could have been a valid objection, however, the Faculty at the time of the nomination, and in accordance to the recent Le Fort report, formally asked the Ministry that the rather ambiguous title be changed. It requested that the mention of 'Diseases of the Encephalon' be removed. At the time, it informed the new professor of their representation. In fact, it is exclusively to teach mental diseases that the professor has been chosen by his peers. That is why the competition was held only between alienists."[58]

The title of the chair was not changed, but Ball never set foot in the Salpêtrière, and in fact his apparent initial reticence to settle at Sainte-Anne was to be responsible for a two year delay before he could deliver his first lecture. In December 1877, the Faculty recommended the Saint-Anne Asylum for the establishment of the chair[59]. According to a ministerial letter reprinted in the *Progrès*, Ball by the end of October had resigned himself to the fact that he would never teach at the Salpêtrière[60]. Nevertheless, his case lost some of its initial urgency and bureaucratic redtape ensured a lengthy process before things could be settled.

By the end of 1878, more than one year after the funds had been voted, Ball still had no service in view. Clemenceau, the initial promoter of the chair in the Assembly, grew impatient. He publicly claimed that personal

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[57]BOURNEVILLE: Les embarras de la Faculté..., *Le Progrès Médical*, 1877, pp.866-7.
[58] *Ibid.*, p.866.
[59]Service clinique de la chaire de pathologie mentale, *Le Progrès Médical*, 1878, p.927.
[60]BOURNEVILLE: Clinique annexée à la chaire de pathologie mentale..., *Le Progrès Médical*, 1878, p.939.

considerations had prevented the swift settling of the matter[61]. The question was then sent to a commission of the Municipal Council in the hope of finding a practical solution. Ironically, Bourneville, who had been in charge of the Council's review of the asylum services since 1877, was made chairman of the commission. The editor of the *Progrès*, who had referred to Ball as 'incompetent', and suggested that he should be removed, was made responsible for finding a way to end the pathetic saga[62]. It is striking, in the process, to see how liberally Bourneville printed in his journal various documents which seemed confidential in nature[63]. This in fact is only one example of Bourneville's 'liberal' use of material which he was privy to due to his elected position. Ball finally delivered his first lecture on 16 November 1879 at the Sainte-Anne Asylum. However, the antagonism between Charcot's students and Ball was to continue to plague Ball's career.

## *Le Progrès Médical* and Anticlericalism

In this section we will review the anticlerical stands the *Progrès* took in the late 1870's and early 1880's on different politically charged issues. This will show Bourneville's political colours, which it appeared were largely shared by Charcot. Furthermore, by reviewing the polemics over the "pancartes' and more importantly the laicization of hospitals, we will see the first signs of Vulpian's relative 'conservatism' and growing divergences in the new medical order in Paris. Lastly, we will emphasize the medical world's perceived power of Bourneville over the administration of the 'Assistance Publique'.

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[61] *Op. cit.* 58, p.927.

[62] BOURNEVILLE: La chaire de pathologie mentale..., *Le Progrès Médical*, 1878, p.898.

[63] *Op. cit.* 60, pp.939-40.

Anticlericalism as a political movement was flourishing in France in the 1870's[64]. To borrow Zeldin's words: "It was originally a protest much less against religious belief than against the political pretensions of the Church"[65]. Its advocates were convinced republicans, and as we mentioned earlier in this chapter, Gambetta, the leader of 'l'Union Républicaine', was one of its champions. They saw in the work of 'cléricaux', which included priests as well as laymen who defended the Catholic Church, a true threat to the republican regime. Their campaign was successful in many ways, but it inevitably created divisions in France. In general terms, "it provided a means by which the two-party system was effectively established in France"[66]. This division was to also affect the medical world of the capital. Though, this simplistic splitting into two factions provides a very limited descriptive social model, it has some value in our study since it helps identify some possible differences between certain individuals.

The *Progrès,* from the start, published both editorials and short articles which were clearly anticlerical. In its first editorial, it denounced the presence of religious personalities, not involved per se in education, on the advisory 'Conseil Supérieur de l'Instruction Publique'. It proclaimed as undesirable the "hybrid association of science and religious faith"[67]. Over the years, it published derogatory and sarcastic stories about nuns, priests and so-called 'illuminés' in its 'Varia' section[68]. It is in its evaluation of political debates and governmental decisions that its distrust and genuine hostility toward the 'cléricaux' was voiced most clearly. These

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[64]CAPERAN: *Histoire contemporaine de la laicité...*, 1957.
[65]ZELDIN: *France, 1848-1945*, 1977, p.1025.
[66] *Ibid.*, p.1027.
[67]Composition du Conseil supérieur de l'Instruction Publique, *Le Progrès Médical*, 1873, p.4.
[68]Examples: Les bonnes soeurs, 1880, p.118; Les soeurs des hôpitaux, 1880, p.359; and Un miracle possible, 1881, p.672-675.

editorials were most often written by either Bourneville or E. Teinturier[69]. Their republicanism was clearly tainted with radicalism: "...in our opinion, radicalism must be seen as a disinfectant, truly the only one powerful enough to cleanse what has been infected by the clerical plague"[70]. This last statement, as many others, shows the backing the *Progrès* gave to the left-wing policies of Gambetta and Paul Bert.

Whether Charcot shared all of his pupils' convictions is hard to establish. It is clear however that he was seen by his contemporaries as a devoted anticleric and republican[71]. In a short biographical sketch of Charcot published during his lifetime, the author suggested that "... M. Charcot's greatest faults are to have renounced his faith and to be a Jacobin..."[72]. Furthermore, his close friendship with Gambetta himself was well known. Gambetta was a frequent guest at Charcot's weekly dinners. Guillain, in his biography, states that Charcot was even responsible for a secret meeting at his country home of Neuilly between Gambetta and the Grand duc Nicolas of Russa, also a friend of Charcot[73]. Whether the head of the 'Union Républicaine' was responsible for Charcot's 1881 Chair of Nervous Diseases will be discussed in the next chapter. Charcot's friendship with leading republican politicians has served as the basis for Goldstein's effort to place the then increasingly popular diagnosis of hysteria in a political context[74]. In fact, this type of political interpretation of Charcot's work is not new

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[69]An example of their anticlericalism can be found in the *Progrès* welcome of the final exclusion of religious leaders from the 'Conseil Supérieur' in 1880 [TEINTURIER: Les conseils de l'Intruction Publique, *Le Progrès Médical*, 1880, pp.147-50].

[70]Une facétie cléricale. *Le Progrès Médical*. 1880. p.321.

[71]DAUDET: *Les oeuvres dans les hommes*, 1922, p.205. Léon Daudet was the son of the famous French writer Alphonse Daudet. The Daudet family was very close to Charcot's own family during the 1880's. Léon Daudet also wrote of Charcot: "En politique, il était nul et d'ailleurs absolu dans ses jugements, ami fanatique de Gambetta, républicain de principe, de milieu, d'éducation, considérant que la grande Révolution avait émancipé le peuple..." [*Op. cit.* 21, p.7].

[72]POINT-CALE: Le Professeur Charcot, *Les hommes d'aujourd'hui*, p.2.

[73]GUILLAIN: *J.-M. Charcot*, 1955, p.30.

[74]GOLDSTEIN: The Hysteria diagnosis and the politics of anticlericalism.... *Journal of Modern History*, 1982, pp209-239.

and can be found in one of Léon Daudet's critical essays. Daudet stated: "... hysteria and cerebral localization were part of the secular and republican programme.."[75].

A closer study of Charcot's students further underlines his connections with the political world of Paris. Two out of the six of Charcot's interns in the 1860's got involved in politics: Bourneville and Cornil. Both were convinced republicans. Cornil in the Chamber of Deputies was a member of 'la Gauche Républicaine', not Gambetta's party but still very much to the left of the political spectrum. When Bourneville entered the Assembly in 1883, he sat on the extreme left. Another medical politician, often neglected in studying Charcot's political friends, was Henry Liouville. Vulpian's intern at the Salpêtrière in 1865, he later married Charcot's step daughter[76]. When he died in 1887, she married Waldeck Rousseau, another leading member of the 'Union Republicaine'. This fostering of political activism in the 1860's at the Salpêtrière was striking. It can at least be partially explained by the fact that the progressive reputation of both Charcot and Vulpian attracted politically-minded students. However, whether Charcot played any role in shaping the political beliefs of his young students can only be suggested. In the following paragraphs we will review some important anticlerical campaigns Bourneville took part in, to propose that there were some differences between Charcot and Vulpian, and that Charcot agreed with many of the political reforms advocated by his students, at least when they concerned medicine.

We will first review the 1876 controversy over new placards to be placed by the 'Assistance Publique' at the head of all hospital beds. This rather insignificant policy was to spur much hostility and protest by

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[75] *Op. cit.* 71, p.226.
[76] *Op. cit.* 73, p.16.

Bourneville[77]. He objected to the new 'pancartes' because, though most of the information to be inscribed was administrative in nature, some had a religious character. To Bourneville's outrage, the name of the patient was to be followed by his or her religion, the name of the chaplain, whether sacraments had been received, and lastly if the patient had changed religion during his or her stay in hospital. To the editor all of this was simply an attack on the patient's sacred freedom of belief. The importance of this apparently trivial debate was to convince Bourneville that by using his journal, and finding the support of other publications, reforms could definitely be accomplished. The project was dropped by the administration, and from this minor victory Bourneville drew the following conclusion: "This small reform demonstrates that by persevering in its request, the press can obtain if not all, at least some of the reforms it demands"[78]. However, in his editorials, Bourneville made clear that the only truly satisfactory means of stopping "religious propaganda" in hospitals was to replace nuns by lay health workers[79].

The *Progrès* requested the creation of schools for the training of lay male and female nurses for the first time in 1875[80]. Though originally the campaign was to improve the quality of such personnel, the major argument soon became one of replacing religious communities who controlled day-to-day care of patients. These schools, according to the *Progrès*, provided good results in other countries such as Germany, Switzerland and England[81]. The official campaign for reform was launched by Bourneville in 1877. In his report on the budget of the 'Assistance

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[77]BOURNEVILLE: L'Assistance publique, les nouvelles pancartes des hôpitaux, *Le Progrès Médical*, 1876, p.657-8; Les pancartes, *Le Progrès Médical*, 1876, p.669.; and Encore les pancartes, *Le Progrès Médical*, 1876, p.681.

[78] *Ibid.*, p.658.

[79] *Ibid.*, p.658.

[80]BOURNEVILLE: Assistance publique: Les infirmiers des hôpitaux, *Le Progrès Médical*, 1875, pp.449-50.

[81]BOURNEVILLE: Assistance publique: les infirmiers. *Le Progrès Médical*, 1876, pp.273-4.

Publique', he underlined the necessity to create such schools at Bicêtre and the Salpêtrière[82]. His recommendation was approved by the Municipal Council, and therefore sent to the 'Conseil de Surveillance de l'Assistance Publique' for final endorsement. Before the final decision was made public, the issue became highly controversial. In March, the 'Assistance Publique' was faced with the decision of choosing whether they would use religious or lay personnel for the new Ménilmontant hospital. Bourneville wrote three editorials promoting the value of lay workers over nuns over a period of one month, but to no avail[83]. The administration asked a religious community to provide for patient care. The decision of the Council, two months later, not to support the creation of such schools came to Bourneville and fellow councillors as no surprise[84]. Nevertheless, Bourneville continued to campaign for what was in essence an anticlerical battle.

In August 1878, Bourneville pursued his claim in the 'Conseil Municipal'. With the support of other physician-councillors he was able to get a subsidy of 2,000 francs to start municipal nursing schools at Bicêtre and the Salpêtrière[85]. In the first few years, these new schools would consume much of Bourneville's time and some of his personal money, mostly because he had the *Progrès* publish a nursing manual: ***Manuel de la Garde-Malade et de l'Infirmier***. Most of the teaching during the early years of these institutions was provided by young collaborators of the *Progrès*. This was only one of the reforms Bourneville seems to have played a large part in implementing, all increased Bourneville's visibility and status. His other mentor, the alienist Delasiauve, could talk in these terms of his pupil in 1880: "...the now influential physician, the Municipal

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[82] *Op. cit.* 20, p.896.

[83] BOURNEVILLE: Conseil municipal de Paris, *Le Progrès Médical*, 1878, pp.207-8, and Religieuses et laïques, *Le Progrès Médical*, 1878, pp.238-9 and pp.258-9.

[84] BOURNEVILLE: Religieuses et laïques, *Le Progrès Médical*, 1878, pp.437-8.

[85] Ecoles d'infirmières laïques..., *Le Progrès Médical*, 1878, pp.647-8.

Councillor who has acquired the confidence of his peers..."[86]. It is because of the leading role he played in pushing for these new institutions and his proclaimed wish that religious communities be removed from the care of patients, that he became a leading protagonist when the debate became very heated in 1881.

In May 1880 the appointment of a new director of the 'Assistance Publique' opened the way for the final successful campaign to ensure the official laicization of Paris hospitals. The Municipal Council firmly in the hands of republicans, with the appointment of Ferdinand Hérold (1828-1882) as Prefect of the Seine in January 1879, welcomed the arrival of a fellow republican, Quentin, at the head of the welfare agency. The first symbolic measure to be approved by the Council was the progressive replacement of the names of saints for hospital services by names of "illustrious scientists"[87]. A few months later, the Prefect asked the 'Conseil de Surveillance de l'Assistance Publique' to back the decision of the Municipal Council to secularize the hospices 'des Petits Ménages' and of 'La Rochefoucauld'. This was seen as a unilateral gesture from the president and many members of the 'Conseil', and it was followed by several resignations. The composition of the new committee was radically different, only three of the previous members being reappointed. This completed what Bourneville referred to a year later as the "républicanization" of the administration of the 'Assistance Publique'[88]. In February 1881, Bourneville could write: "It seems that the campaingn we have been supporting for so long, will shortly deliver all the desired results"[89]. Though his forecast was to become reality, the following months were to be the stage of a heated polemic in which Bourneville would be the

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[86]Distribution des prix à l'école..., *Le Progrès Médical*, 1880, p.279.
[87]Laicisation de l'Assistance publique..., *Le Progrès Médical*, 1880, p.413.
[88]'Réunion du Conseil Municipal de Paris', 19 December 1881.
[89]BOURNEVILLE: Laicisation de l'Assistance Publique, *Le Progrès Médical*, 1881, p.134.

target of many personal attacks. Bourneville was attacked because he was seen as the driving force behind this reform: "M. Bourneville is the man behind the laicization of hospitals, a reform the enemies of the Republic have confirmed the importance by their slandering"[90].

The strongest public opposition came from fellow hospital physicians A. Deprès, a physician at the Cochin Hospital, and Potain, a professor at the Faculty of Medicine. Both published letters denouncing laicization. Their arguments ranged from the good services the religious communities had always provided and the increased cost that such a reform would entail, to the one that poorly paid and poorly educated lay nurses could not provide satisfactory support to physicians and could even rob patients. Bourneville was quick to retort in his usual style. He labelled Potain's arguments insignificant and Deprès', slanderous[91]. The *France Médicale* became the spokeman for physicians who opposed secularization. They published a petition signed by 62 Paris physicians against the reform[92]. During the following months, three other petitions were made public, two against and one for the replacement of nuns[93]. If one studies these lists closely, one reaches various conclusions. First, 65 acting chiefs of medical or surgical services of the 'Assistance Publique', and 12 young physicians working for the 'Bureau Central' disapproved of the reform. On the other hand, the only letter of support came from 8 chiefs of services from already laicized hospitals. This meant that over 50% of all physicians with hospital appointments were publicly against the reform (77/150). Second, 10 out of the 28 honorary titular and titular members of the 'Société de Biologie' who had hospital appointments were against the reform (36%). Lastly, 5

[90]PIERRE and PAUL: Le Dr. Bourneville, in *Les Hommes d'Aujourd'hui*, 153, p.2.
[91]BOURNEVILLE: Soeurs ou laïques, *Le Progrès Médical*, 1881, pp.178-81. This editorial included reprints of both letters.
[92]BOURNEVILLE: Religieuses ou laïques, *Le Progrès Médical*, 1881, p.212.
[93]For reprints of the three petitions, see: *Le Progrès Médical*, 1881, pp.210 and 248-9.

out of 14 collaborators of the *Progrès* with hospital services opposed the plans of the Council (36%). Therefore, the medical community was more or less equally devided on the issue. In fact, that both *Progrès'* collaborators and members of the 'Société de Biologie' appeared more in favour of laicization, I believe, reflected their more 'progressive' attitude toward reforms in general. Noteworthy is that Vulpian was against the reform, and that Charcot, by not signing any of the petitions, probably supported it. Furthermore, the fact that Charcot, his wife and his father in law Laurent Richard, provided prizes for the Salpêtrière nursing school, clearly shows that Charcot backed Bourneville. This, I believe, was a clear indication of Vulpian's relative 'conservatism' compared to Charcot's. Another example of this was Charcot's support for the selection of women as interns in 1885, while Vulpian never having supported the policy of emancipation backed by Bert, refused to sign the petition[94].

Bourneville was then faced with a campaign to oppose the vast project he and fellow republicans had been preparing for many years. Furthermore, this opposition was made up of a large proportion of his colleagues, with whom he was somehow supposed to share common interests. It is in this context that the creation of nursing schools can been seen in its true light. As Bourneville said to trainees in 1880: "...by your work, your devotion to duty, you will promptly provide us with the means to achieve the objective of the Municipal Council and the Administration: *the laicization of Paris hospices and hospitals* (Italics in the original)"[95]. These newly trained employees were needed to replace the religious "foreign body' from the hospital system[96]. Bourneville insisted that lay nurses were the only truly skilled collaborators for physicians. He further stated that: "we wish to provide heads of services with servants

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[94]ANDRE-THOMAS: *Augusta Dejerine-Klumpke*, 1929, p.9.
[95]Distribution des prix..., *Le Progrès Médical*, 1880, p.703.
[96]*Op. cit.* 91, p.180.

who could be promoted or fired depending on their skills or incompetence; some seem to forget that a man's house is his castle..."[97]. This last argument could be interpreted, and has been by some, as the true reason for the campaign[98]. In other words, the medical profession wanted to create a new class of workers who would be under their control, rather than nuns who were only responsible to the head of their community. However, it is difficult to establish a single motivation behind the reform, especially when one considers that half of the medical profession did not support it. In fact, it appears that different arguments were emphasized, whether promoting the issue to a medical, political or lay audience. However, the political dimension was clearly the most important for Bourneville. He stated at a meeting of the Municipal Council in March 1881: "It is in the name of the freedom of conscience that as true republicans we have always asked for the secularization of teaching. Furthermore, it is for the same freedom of conscience... that we campaign for the laicization of the 'Assistance Publique'"[99]. In other words, the choice by some physicians to promote the training of lay health workers in France must be seen as part of a larger socio-political anticlerical campaign which resulted in the progressive secularization of French society as a whole.

Let us turn now to personal attacks against Bourneville. The value of presenting some of the accusations is to illustrate how Bourneville was seen as the leading promotor of the reform, and how medical colleagues saw him by then as having a prominent role in decision making by the 'Assistance Publique'. Desprès soon became the protagonist for the campaign against laicization. Over a period of two months, he wrote seven letters to oppose the reform, six of which were reproduced in newspapers. In a letter to the popular daily *Le Temps*, Deprès recounted that a few

[97]BOURNEVILLE: Soeurs et laïques..., *Le Progrès Médical*, 1881, p.215.
[98]HAHN: Charcot et son influence..., *Revue des Questions Scientifiques*, 1894, p.256.
[99]BOURNEVILLE: Laïcisation des hôpitaux, *Le Progrès Médical*, 1881, p.247.

years ago at the Laënnec Hospital, a lay nurse that Bourneville had placed there was found to be stealing chickens, hospital beds and throwing seedy parties at her home. Michel Möring, then director of the welfare agency, had confided to Deprès that it was impossible for him to dismiss the nurse because she was a 'protégé' of Bourneville's[100]. Bourneville stated that these accusations were unfounded and slanderous to both him and the memory of Möring[101]. To this Deprès retorted in the same newspaper:

"Your honorable correspondent wrote I had been uncourteous to the memory of the late Michel Möring by calling upon his testimony. However, I wish to point out that he was possibly the only employee of the 'Assistance Publique' whom M. Bourneville could not have dismissed in twenty four hours."[102]

To this Quentin, the new director of the 'Assistance Publique', replied in a meeting of the Municipal Council that Deprès' claim was preposterous[103]. Though Deprès continued his offensive, not much came of it. Nevertheless, this did not stop the ordeal of the editor of the *Progrès*. He was accused of conflict of interests during the Senate debate of June 1881 on the secularization of hospital personnel. To the accusation that he had benefited financially from his position as head of the nursing schools, he replied that if anything, the entire enterprise had cost him much time and money. This was backed by the Administration. However, this was not enough, a real scandal was exposed by his rival *France Médicale* in December 1881. A lay male employee on Bourneville's mentally retarded children's ward at Bicêtre was arrested for sexually abusing many of the young patients. Bourneville and the Administration were accused of negligence, and indirectly the entire issue of lay hospital employees was denounced again. Bourneville came out of this with his reputation

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[100]DEPRES: *Le Temps*, March 19, 1881.
[101]BOURNEVILLE: *Le Temps*, March 31, 1881.
[102]DEPRES: *Le Temps*, Mar. 23, 1881.
[103]*Op. cit.* 101.

apparently unscathed, but the virulence of these repeated personal attacks illustrated clearly that he was seen as one of the key figures responsible for the reform. The reform was by then unavoidable, and over the next twenty five years, all Paris hospitals and hospices were laicized. However, one wonders if Bourneville would have survived all the criticism without Charcot's protection?

**Vulpian Resignation's as Dean**

The period we have just reviewed was paved with successes for Vulpian. Not only had he been made dean at the relative young age of forty nine, but in 1876, he became a member of the prestigious 'Académie des Sciences'. From the time of his selection as Professor of Pathological Anatomy in 1867, he had been associated with the more 'progressive' and up-coming generation of physician-scientists who took over the Faculty in the 1870's. His deanship saw a complete renewal of the Faculty. With the reconstruction of the 'Ecole pratique', the Faculty finally obtained some of the laboratories it had been requesting for decades. The medical curriculum itself was deeply reformed to include more laboratory and clinical training. Lastly, new medical specialties saw chairs created for their teaching[104]. These were only the most important changes the Faculty witnessed during his time in office. He was well liked by students, and very much appreciated by his fellow professors. This last point is illustrated by his unanimous reinstatement as Dean in 1880. However, the arrival of Gambetta and his infamous "Grand Ministère" to power in November 1881 was to prompt Vulpian's resignation.

[104]These were: 'chaire de pathologie mentale et des maladies de l'encéphale' (1877), 'chaire de clinique d'ophtalmologie' (1878), 'chaire de clinique des maladies urinaires' (1879), 'chaire de clinique des maladies cutanées et syphilitiques' (1879), and 'chaire clinique des maladies des enfants'(1879).

Following the swing to the left in the national election of the fall of 1881, Gambetta was asked to form the government. Gambetta made Paul Bert his Minister of Education. Vulpian and Bert had known each other for many years, both being physiologists and long-standing members of the 'Société de Biologie'. However, it is probably as members of the "Conseil Supérieur de l'Instruction Publique' that the two discovered each other's opposition on educational issues. The appointment of Bert was made public on 15 November. The same day Vulpian resigned. Vulpian's letter of resignation to the Ministry gave no clue for his stepping down. However, the timing and publicity made to his resignation by the conservative press ensured that his gesture was seen as a disapproval of Bert's nomination.

The medical world, as much as one can discover by reading its periodicals, made little of the event. So little, that one wonders what was responsible for the rather shy notice it gave to the issue. The *Progrès* reprinted, in its 'Varia' section, the letter Vulpian had sent to P. Brouardel, president of the Professorial Assembly, to inform him of his decision. Nothing transpires from this short letter as to the reasons for Vulpian's resolution. The letter was followed by one of regrets by the Faculty professors[105]. One finds similar texts in the other leading journals: *La Gazette des Hôpitaux*, and *La Gazette Médicale*. The nomination by the new Minister, a few days later, of the republican politician and Professor of Physiology of the Faculty, Jules Béclard, was given even less coverage by the medical press[106]. One could propose that in fact the medical world of the capital was in a state of shock. Though it had witnessed many quarrels over the years, the preceding 5 years had been rather peaceful and prosperous for the profession as a whole. I would further like to suggest that rivalries, which in many ways had been kept

[105]Démission du Doyen de la Faculté, *Le Progrès Médical*, 1881, p.938.
[106]Nomination du Doyen, *Le Progrès Médical*, 1881, p.956.

silent during the years of repression of the Empire and the early days of the Republic, were starting to be voiced. Because much had been achieved in the preceding years, and peers were starting to have real political power, finer differences in outlook could not be ignored anymore. This somewhat incestuous rivalry, I believe, was largely responsible for the wait-and-see attitude of the medical press, which, as we have already seen, had started to split over the issue of laicization.

A study of the political press provides great insight on the reaction of its medical counterparts. The republican press published either a short announcement of Vulpian's resignation and a brief mention of Béclard's nomination, or in other cases, printed the same text which appeared in medical journals[107]. A similar lack of coverage by the medical and lay republican press, compared to the conservative political press is, I believe, quite revealing. *Le Figaro* , the leading conservative paper, gives much more importance to the Dean's resignation. In its November 15 issue, discussing the nomination of Paul Bert, it stated: "The University has growled much...we will see if the rumored resignations will be carried out"[108]. On the 17, it broke the news of the resignation of E. Flourens, the son of Vulpian's mentor then 'Directeur des Cultes', and of Vulpian. On the front page one finds a full-length article on Vulpian's resignation. *Le Figaro* stated its impatience to find out the reaction of the republican press to the news: "We are curious to find out how the republican press will be able to explain this resignation, knowing that this scientist had been singled out for his materialist opinions since 1867..."[109]. As we already showed, the response was very limited, and certainly did not suggest the reasons for Vulpian's decision. However, *Le Figaro* was clear

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[107] For examples of the first type: *La République Française*, 21 Nov., 1881, and *La Petite République*, 18 and 22 Nov., 1881; of the second type: *L'Intransigeant*, 18, 21 and 22 Nov., 1881, and *Le Temps*, 20 and 21 Nov., 1881.

[108] *Le Figaro*, 15 Nov., 1881, p.2.

[109] VALTER: Les démissions..., *Le Figaro*, 1881, p.1.

as to what it thought was behind the event. Though it reported that publicly the Dean claimed he did not resign because of the newly appointed Minister, *Le Figaro* added: "...all professors know that his resignation was motivated by the appointment of Paul Bert as Minister of Education"[110].

Vulpian's resignation was to mark a turning point in his career. The man who had always "wanted to be the most powerful to do the most good", was stepping down from the position that granted him the greatest power[111]. It seems however that he was not ready to drop everything, he ran in December to keep his position on the 'Conseil Supérieur de l'Instruction Publique'. His candidacy was criticized by the *Progrès*, which had had only good things to say about Vulpian since its foundation[112]. He was defeated by Jules Béclard, the same man whom Bert had appointed to become the new Dean of the Faculty. In many ways, Vulpian, who had been in the medical limelight for over fifteen years, was to fall into a retired statesman's oblivion. He went back to his research and teaching which he had neglected over the preceding ten years. The stepping down of Vulpian interestingly coincides, as we will see in the next chapter, with Charcot's own period of greatest glory and fame.

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110 *Ibid.*, p.1.

111 *Op. cit.* 28, p.411.

112 Faculté de médecine: nomination..., *Le Progrès Médical*, 1881, p.991.

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# CHARCOT'S GOLDEN AGE

The 1880's were the decade where Charcot reached the zenith of his career. The first Chair of Neurology in the Western World was created for him at the Paris Medical Faculty in 1882. His reputation extended beyond France, and he became one of the most famous European physicians of his time. He had succeeded in gathering a large following of students to form a well structured school: 'l'Ecole de la Salpêtrière'. Charcot's School not only had a temple, the Salpêtrière Hospice, but also promoted a methodological 'gospel': 'La méthode anatomo-clinique'. The number and high professional position of Charcot's pupils ensured a wide audience for his ideas. While Charcot achieved a sort of hegemony during the 1880's in the medical world of Paris, his life-long friend Vulpian became history.

## Charcot's Clinical Chair of the Diseases of the Nervous System; a Turning Point in the Making of Neurology

Charcot, from the time of his appointment to the Salpêtrière in 1862, became increasingly involved in neuropathological research. Though originally much of his national and international fame was secondary to his work in general pathological anatomy, by the mid 1870's his name came to be intimately associated with Parisian research on the nervous system. His work in the late 1860's and early 1870's on various 'nervous maladies', including multiple sclerosis and amyotrophic lateral sclerosis, a condition

often referred to as 'Charcot's disease', was associated with the field. Yet, it was his internationally famous 1875 teaching on cerebral localization, and his work on hysteria and hypnotism which secured his reputation as a leading neuropathologist. Though, as Professor of Pathological Anatomy at the Faculty until 1882, he continued to lecture on general pathology, his teaching at the Salpêtrière became increasingly focused on the diseases of the nervous system. He was not the only professor in Paris however to have chosen the nervous system as a subject of predilection, namely, at the Faculty, Marc Sée, Professor of Pathology, Vulpian, Professor of Experimental Pathology, and Charcot's pupil Charles Bouchard who was made Professor of General Pathology and Therapeutics in 1879. Furthermore, Ranvier and Brown-Séquard from the 'Collège de France' were also well known neuro-scientists[1]. In fact the subject had been popular for decades and had interested physiologists, pathologists and clinicians alike. By the end of the 1870's, however Charcot and his disciples were publishing on the subject more than anyone else in Paris. As we have previously seen, the question of creating a specialized chair had been in the air at least since the setting up of the Chair of Mental Pathology in 1877. However, the 'official consecration' of Charcot's neuropathological teaching came only in 1882.

In this section we will review the creation of the 'chaire de clinique des maladies du système nerveux', and Charcot's appointment. We will first examine the events that led to Charcot's nomination, to evaluate the degree of political patronage involved. We will then turn to Charcot's assessment of the purpose and value of this new chair. This will lead us into a more general discussion on medical specialization, and more specifically on the establishment of neurology as a discipline in Paris.

[1]Brown-Séquard had been made Professor of Medicine at the Collège de France in 1878, in replacement of Claude Bernard. He competed against Charcot for this chair.

In early May 1881, Vulpian heard of a rumour that there was some discussion in the corridors of the National Assembly about the creation of a chair for nervous diseases[2]. Vulpian wrote to the Minister asking him to brief him on the matter[3]. The Ministry of Education wrote back asking the Faculty to assess the need to set up five new chairs[4]. The Government proposed the establishment of three chairs of hygiene, one of dermatology, and one of toxicology[5]. Vulpian and the Professorial Assembly rejected these suggestions. However, they discussed the creation of a chair of nervous diseases. All agreed that Charcot's stature would ensure the success of the new chair, though Verneuil expressed some concern as to who in time, would replace Charcot[6]. A commission, made up of Verneuil, Le Fort and Hayem, was set up to examine the creation of three new chairs: nervous diseases, dermatology and a second chair of obstetrics[7]. The commission's report was approved at the next meeting of the Professorial Assembly[8]. They agreed on the timely creation of a Clinical Chair of the Diseases of the Nervous System, and suggested the possible need to fund two new chairs of obstetrics[9]. On July 9, the House of Deputies approved the allocation of 200,000 francs for the creation of the neurology chair[10]. It was created on January 2 1882 by ministerial order, and Charcot was appointed professor[11]. The Faculty was asked to approve the permutation of Charcot from his old chair to the new one. The result of the vote was 16 for the permutation, 13 against and 3 abstentions. To this, the *Progrès*

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[2] *Procès verbaux des professeurs de la Faculté de médecine...*, Archives Nationales, AJ[16] 6258, 12 May, 1881, p.332.
[3] *Ibid.*, p.332.
[4] *Ibid.*, p.344.
[5] *Ibid.*, p.344.
[6] *Ibid.*, p.344.
[7] *Ibid.*, p.346.
[8] *Ibid.*, p.383.
[9] *Ibid.*, p.383; and Création de nouvelles chaires, *Le Progrès Médical*, 1881, pp.429-30.
[10] Chaire des maladies nerveuses, *Le Progrès Médical*, 1881, p.571.
[11] Arrêté du deux janvier 1882, *Le Progrès Médical*, 1882, p.17.

added: "What a singular majority!"[12]. Singular majority indeed. However, its exact significance is hard to assess. Was it secondary to some of the rivalries in the Faculty, which we will discuss in this and the following chapter, or to resentment to the possible political patronage behind the nomination of the 'maître' of the Salpêtrière?

Some historians have claimed that Charcot's new chair was a gift from his political allies[13]. However, though it is quite likely that his parliamentary friends did support the granting of funds for the new teaching, their exact role in the process is still not clear. One common source of error was Guillain's categorical claim that: " In July 1881, on the initiative of Gambetta, then president of the Ministerial Council, the Assembly approved credits... for the creation of the chair..."[14]. Yet, this statement is historically erroneous. In July 1881, Gambetta was a mere deputy, he was made president of the Ministerial Council only in November. Furthermore, credits that were approved came when Jules Ferry was Minister of Education. Therefore, though Charcot was appointed in January 1882 by his friend Paul Bert, then Minister in Gambetta's cabinet, it is far from clear that one should see his appointment, and even less the creation of the chair, as a result of pure political patronage, as it has been generally claimed in the past. Nevertheless, this does not preclude that fellow professors who opposed his transfer saw his appointment by Bert in this light.

Charcot delivered his opening lecture in late April 1882 to a packed audience in the new 600-seat amphitheater of his beloved Salpêtrière. Many professors, dignitaries and most of his disciples were joined by

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[12]Faculté de Paris, *Le Progrès Médical*, 1882, p.35.

[13]ACKERKNECHT: Paul's Bert Triumph, *Bulletin of the History of Medicine*, 1944, p.20.; and GOLDSTEIN: The Hysteria Diagnosis and the Politics of Anticlericalism..., *Journal of Modern History*, 1982, p.233.

[14]GUILLAIN: *J.-M. Charcot...*, 1955, p.19.

students to witness what Charcot himself called the "official consecration" of his 17 years of teaching within the walls of the old hospice[15]. He first thanked everyone responsible for his appointment. He then emphasized that the splendid organization of his service had anticipated his nomination, and was due to the "liberal" support of both the administration of the 'Assistance Publique' and the Municipal Council. Charcot insisted that they were responsible for the creation of a "true Neuropathological Institute"[16]. Lastly, in a paternal manner, he thanked in these terms: "...the ones who honour me by calling themselves my pupils, many of them mentors in their own right or soon to become such"[17]. He then asked all of them to share his happiness, because their work was also responsible for the success of the undertaking.

It is worth describing again, as Charcot did in his speech, the organization of his vast service. His old hospital service served as the foundation to which the new facilities were added, including: a library, a pathological anatomy museum, an ophthalmology consulting room, a casting workshop, a photography workshop, a pathological anatomy laboratory, a patho-physiology laboratory, a large amphitheater with all the modern didactic equipment, and an electro-diagnostic and therapeutic service. Lastly, to this large 'ensemble' an outpatients service, and a 60 bed short-stay ward were added in 1880[18]. The clinic's turn-over of patients was truly enormous when one thinks that Charcot's neurological clinic was held on Tuesdays only. During the first six months of 1885, a total of 1020 patients from all over the world were examined[19]. With Charcot's

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[15]CHARCOT: Leçon d'ouverture, in *Oeuvres complètes...*, Paris, 1890, vol. III, pp.1-22.

[16] *Ibid.*, p.2.

[17] *Ibid.*, p.3.

[18] *Ibid.*, pp.5-6.

[19]Hospice de la Salpêtrière: clinique des maladies nerveuses..., *Le Progrès Médical*, 1884, p.898; MARIE, AZOULAY: Consultation externe de la clinique des maladies du système nerveux..., *Le Progrès Médical*, 1885, pp.490-1.

appointment, it became a university clinic. This provided the mentor's interns with lucrative jobs after their internship, as head or assistant head of the clinic, during which time they worked in an ideal setting to prepare their 'concours' (see Appendix V).

Charcot's chair was the first in the Western World to be created specifically for the study of nervous diseases[20]. Charcot, aware of the widespread objections to medical specialization, felt he had to justify, not to say defend, the official endorsement of his teaching[21]. Charcot tried to answer the question as to whether "the official consecration of another speciality" would endanger "the unity of the science?"[22]. For him, one individual could no longer claim to be able to encompass the vastly increased corpus of medical facts, therefore: "Specialization has become inevitable and necessary; we must accept it, because it is impossible to avoid"[23]. However, to him the requirement that 'agrégés' acquire broad medical culture was indispensable to prevent a sterile dismemberment of medicine at the Faculty. In his opinion, there should also be no fear of an over specialization in neuro-pathology. For Charcot, this field, possibly more than any other at the time, was so broad and growing so rapidly that individuals choosing its study could succeed only if they had an extensive general medical education. In other words, neuropathology could never become over specialized, because Charcot and others had defined the discipline as one in which many other branches of medical knowledge should be integrated. However, as we will see in a following section, though Charcot encouraged a more encyclopaedic approach to neuro-pathology, he had a clear bias as to the most valid facts to be collected.

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[20] McHENRY: *Garrison's History of Neurology*, 1969, p.247.
[21] *Op. cit.* 15, pp.6-8.
[22] *Ibid.*, p.6.
[23] *Ibid.*, p.7.

Charcot's chair was not the first, or indeed the last, speciality clinical chair to be set up at the Faculty. In fact, the movement was started while Vulpian was Dean. When Vulpian became Dean in 1875, there were ten clinical chairs: four of clinical medicine, four of surgery, and two of obstetrics (accouchement). They represented the then traditional breakdown of the medical profession, which historically was not due to specialization per se, at least in the nineteenth century sense, but rather inherited from the 'fraternal' union into one profession of physicians (médecins à longue robe), barber-surgeons (médecins à robe courte), and male 'midwifes' (accoucheurs). When Vulpian resigned in late 1881, the Faculty had seen the establishment of six new clinical chairs[24]. During this process, various specialities witnessed, to use Charcot's own words, their "detachment from the bosom of general medicine"[25]. These specialities included in contemporary terminology: psychiatry (1877), urology (1878), ophthalmology (1878), dermatology and syphilology (1879), and pediatrics (1879)[26]. However, one must keep in mind, that because most of the clinical teaching in Paris was done by hospital physicians with no Faculty appointments, some being responsible for more or less specialized wards, specialities in practice had existed for decades, and administrative planners were instrumental in their creation.

This discussion naturally leads us to the larger issue of medical specialization. Unfortunately, there is no good history of the making of neurology as a medical speciality in France or, for that matter, in any other country. Though many models of medical professionalization have been proposed in this century, there are no articulate models for its division into different specialities[27]. However, by borrowing from Anglo-American

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[24]CORLIEU: *Centenaire de la Faculté...*, 1896, from various tables.
[25]*Op. cit.* 15, p.7.
[26]The other chair was one of medicine (1876).
[27]ROSEN: *The Specialization of Medicine*, 1944.

sociology some of the proposed characteristics of a profession and applying them to neurology, one can produce a more coherent discourse on its history. Goldstein, in her recent book on the French psychiatric profession in the nineteenth century, produced what she referred to as: "A composite list , reflecting at least some degree of sociological consensus about the nature of a profession"[28]. This list included: a body of esoteric knowledge; a monopoly based on the mastering of this same knowledge; autonomy or professional self-control; and a service ideal or ethical commitment to clients. The third and forth characteristics are, in my opinion, more relevant to a study of medical professionalization as a whole than of specialization, and therefore will not be considered. However, the first and second are useful as a basis for this discussion.

The claim of possessing an esoteric knowledge was capital to both the self-definition of a profession and of a speciality within medicine. It served the dual purpose of segregating individual practitioners from the whole, depending on their mastering of a specific body of knowledge, and, of more or less officially enforcing an apprenticeship for beginners, in other words a special training. Historically, the esoteric knowledge also had to acquire a special label to distinguish it from general medicine. Charcot would always use "neuropathologie" rather than the two substantives already in use: 'neurologie', and 'névrologie'[29]. The term neurology had been introduced in medical terminology in the seventeenth century by Thomas Willis (1621-1675). He had combined the Greek root *neuron*, meaning sinew, tendon or bowstring, with *logos*, meaning systematic study. According to McHenry, though it originaly referred to "a doctrine of the nerves", in Samuel Johnson's eighteenth century English Dictionary, it was said to be "a description of the nerves" and by the nineteenth century it "became the

[28]GOLDSTEIN: *Console and Calssify...*, 1987, p.10.

[29]Charcot used "neuropathologie" in his official opening lecture in 1882 [*Op. cit.* 15]. Never did he refer to the field as 'neurologie' in his teaching.

scientific study of the anatomy, function and diseases of the nervous system"[30]. What is clear in the French language is that by the 1870's 'neuropathologie' as well as 'névrologie' and 'neurologie' were in use. The last two were seen as synonymous, while the first, according to Larousse's *Dictionnaire universel* (1888 supplement), should be seen as a branch of pathology[31]. Though Charcot and Bourneville gave the name of *Archives de Neurologie* to their specialized journal in 1880, it seems that Charcot's preference always went to the term 'neuropathologie'. It reflected Charcot's medical background, that is internal medicine with a strong preference for anatomo-pathological correlations. For Charcot the field was therefore concerned with the diseases of the nervous system and their pathological substrates. It was to be considered then as a branch of internal medicine, and quite distinct from the then already specialized field of 'psychiâtrie'. Charcot saw the two as distinct specialities, though they had much in common philosophically. This was clearly stated by him in his Introduction to the first volume of the *Archives de Neurologie*. For Charcot, the *Archives* would:

> "...make it possible to keep in permanent contact, Psychiatry, a speciality for many years already, and so-called Neuropathology; two parts of one unit, which have been separated for practical reasons, but which must remain philosophically linked to one another."[32]

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[30] *Op. cit.* 20, p.55.

[31] Littré and Robin in their medical dictionary defined "névrologie" as: "The branch of anatomy which studies nerves" (Partie de l'anatomie qui traite des nerfs). They do not mention 'neurologie' [LITTRE and ROBIN: *Dictionnaire de médecine...*, Paris, 1873, p. 1030]. Larousse's *Dictionnaire universel* (1874) borrowed Littré's definition of 'névrologie' but added that it was synonymous to 'neurologie'. It was only in 1888 that the term "neuropathologie" was included. Neuropathology was defined as : "In pathologie, the study of the diseases of the nervous system" (p.1633).

[32] CHARCOT: Introduction, *Archives de Neurologie*, 1880, p.2. The French text reads: "...il était permis de tenir en contact permanent, la Psychiâtrie, depuis longtemps spécialisée, et la Neuropathologie proprement dite: ces deux parties d'une même unité séparées par des nécessités pratiques, mais devant, philosophiquement, rester associées l'une à l'autre par des liens indissolubles".

In other words, Charcot was campaigning for the establishment of another medical speciality to be called "Neuropathologie", which, though derived from internal medicine and pathology, had in many regards much in common with psychiatry, while being distinct from it. The new breed of practitioners was already called 'névrologue' or 'neurologiste'. 'Neurologiste' became the most commonly used of the two labels in the last two decades of the century, to be supplanted by "neurologue" in the twentieth century[33].

As mentioned above, neurology had been taught under different forms by various teachers of the Faculty before the creation of Charcot's chair. However, the official nature of this teaching from 1882 marks a turning point in the history of the discipline. In the Western European context, it constituted a land mark. It was truly the first academic chair labelled as distinct from psychiatry. In England, though the National Hospital for Nervous Diseases (Queen Square) had been founded in 1860, there was no chair of neurology in London in the 1880's. In the German-speaking world, though many nineteenth century scientists have entered history as great neurologists, the official creation of independent chairs of 'neurologie' or 'nervenlehre' had to wait until the early twentieth century[34]. This probably reflected the more tenuous division between psychiatry and neurology in German-speaking countries. Charcot in fact saw the creation of the Paris chair as a necessary step in preventing other countries from surpassing French neuropathology on "its own grounds"[35]. For Charcot, the establishment of the chair ensured that all French students and foreigners interested in neuropathology, could have access to an official teaching of the subject in Paris.

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[33]Larousse's *Dictionnaire universel*, included "névrologue" in 1874 ( vol. 16, p.958), and "névrologiste" in its 1878 supplement (vol. 17, p.1116). Littré and Robin included "névrologue" [*Op. cit.* 30, p.1030].

[34]EULNER: *Die Entwicklung der medizinischen Spezialfächer...*, 1970.

[35]*Op. cit.* 15, p.8.

This last issue concerns the question of professional monopoly, the second professional characteristic relevant to a discussion of medical specialization. Professional monopoly implied the creation of a neurological society and the granting of professional degrees. This did not take place during Charcot's lifetime. The 'Société de Neurologie' was created in Paris six years after the death of the 'maître' in 1899, and its original membership mostly included pupils of Charcot. As for the granting of degrees, it came much later in the twentieth century.

In summary, the 1880's saw an important turning point in the early history of neurology as a speciality in France, though, until Charcot's death, anyone in practice could claim to neurological expertise. Charcot's place in this enterprise was capital in my opinion, both because he defined its esoteric knowledge, and because he trained most of the first generation of French neurologists. In other words, the 'maître de la Salpêtrière' left a deep personal imprint on the early stages of the making of neurology.

"There was a time, when all the neurologists on this planet would bow full of reverence to the image of *Charcot*, the "master clinician", as Freud refers to him in his recent translation of Charcot's "New lessons"; This was a time when no one would claim to be a neurologist before his hand had been shaken by the French scientist in person on the wards of the Salpêtrière."[36]

## Charcot's Golden Age

The first half of the 1880's was the period during which Charcot achieved the highest national and international fame. In this section we

[36]Hystérie en Allemagne, *Le Progrès Médical*, 1887, p.441. This was a translation of Laquer's review of Freud's German translations of Charcot's *Nouvelles leçons sur les maladies du système nerveux*, in the *Neurologie Centralblatt* (1887, n° 18).

will first discuss Charcot's celebrity in England, to emphasize that it had been cultivated by him, and, furthermore, that it was not solely secondary to his neurological work. Lastly, his reputation in France will be discussed, using his 1883 election at the 'Académie des Sciences' as a backdrop.

Following the Franco-Prussian war of 1870, not only did Charcot refuse to go to Germany, but he turned to England to find a foreign audience for his work[36]. Though he had visited Germany before the war, and after 1870 travelled to many other countries, it was to the country of Shakespeare, his favourite author, that he would turn to publicize his medical work[37]. In 1877, he attended the British Medical Association's annual meeting in Manchester[38]. Various foreign physicians organized scientific demonstrations[39]. Charcot's demonstration on tuberculosis was so popular according to the *British Medical Journal*, "that, at the request of a large number of persons who were unable to attend on the first day, they were twice repeated on the following days"[40]. The *Progrès* commented that the warm reception given to Charcot "was a testimony of the high esteem in which the scientific *leaders* of our country are held on the other side of the Channel"[41]. This coincided with the publication of a translation of Charcot's 1872-73 "Lectures on the diseases of the nervous system" by the

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[36]GUILLAIN: *J.-M. Charcot...*, Paris, 1955, p.31.

[37]Guillain mentioned that besides England and Germany, Charcot visited Italy, Belgium, the Netherlands, Spain, Russia, and Northern Africa [*Ibid.*, p.28].

[38]The Annual Meeting at Manchester, *B.M.J.*, 1877, pp.226-8.

[39]The foreigners singled out by the *British Medical Journal*, were: Charcot and Proust from Paris, Lewis Sayre from New York, and Ludwig from Leipzig [*Ibid.*, p.227].

[40]*Ibid.*, p.227.

[41]Le congrès de l'Association Médicale de la Grande Bretagne..., *Le Progrès Médical*, 1877, p.721. The word "leaders" is used in the original article.

New Sydenham Society of London[42]. This was the first of many of Charcot's works to be translated into English[43].

Four years later, the 1881 London International Congress of Medicine was to fully establish Charcot as one of the most famous physicians in Europe. The opening ceremony of the week-long congress was described by the *British Medical Journal* in these terms:

> "Medicine has never been more fully represented, or more publicly honoured, than in the great assemblage of Wednesday, the third of August, when the Royal Princes of the great Teutonic and English empires, standing side by side on a platform graced and dignified by the most representative and illustrious of physicians and surgeons of the world, declared the Congress of 1881 open for its work. By the side of Paget and Jenner stood Langenbeck, Pasteur, Virchow, Charcot, Donders, Austin Flint and Pantaleone."[44]

Therefore, Charcot was seen in the early 1880's as having a guaranteed place in the pantheon of great medical men, and at the relatively young age of 56. The subject presented by Charcot in his demonstration, arthropathic affections in ataxia, supports the claim made earlier, that in the early 1880's his international reputation was largely based on his general anatomo-pathological work, and not purely on his neurological research[45]. Charcot, on the closing night, was further singled out as one of the greatest participants of the congress. The *British Medical Journal*

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[42]CHARCOT: *Lectures on the Diseases of the Nervous System*, trans. SIGERSON, 1877. The international success of the printed lectures was great. In France, after having been first published in various journals, they were compiled by Bourneville in a book. It was first published in 1872-73, then reprinted in: 1875, 1880, 1884, and 1886. His lectures were also translated into six different languages: German (1874), Russian (1876), Magyar (1876), English (1877, reprinted in 1881, and a new translation in 1889), Italian (1877), and Spanish (1882) [BOURNEVILLE: Avis de l'éditeur, in : CHARCOT, *Oeuvres complètes*, vol. I, 1892, p.V.]

[43]CHARCOT: *Lectures on the Localization in Diseases of the Brain...*, tans. by FOWLER, 1878; *Clinical Lectures on Senile and Chronic Diseases*, trans. by TUKE, 1881; and *Clinical Lectures on the Diseases of Old Age...*, trans. by HUNT, 1882.

[44]The International Medical Congress, *B.M.J.*, 1881, p.230.

[45]Demonstration of Arthropathic Affections of Locomotor Ataxia, *B.M.J.*, 1881, p.285

reported: "...in the evening an informal dinner took place in the Concert Room of the Crystal Palace. It was followed by a pyrotechnic display, the original feature of which consisted in the fire-portraits of Sir James Paget, M. Charcot, and Professor Langenbeck"[46].

This event was even more significant, when one discovers that from the 200 or so French participants, eight were professors of the Faculty of Paris, and that Pasteur and Brown-Séquard also attended the congress[47]. To what degree this show of public esteem ruffled the egos of his countrymen is not known. Nevertheless, he came back to Paris to be soon bestowed the greatest scientific honour of his country.

By the early 1880's, Charcot had acquired all but one of the professional titles a medical man of the capital could hope and work for. He was a professor of the Faculty, head of service in one of the hospitals of the 'Assistance Publique', and a member of the 'Académie de Médecine' since 1872. In 1878, he submitted for the first time his candidacy for the highest of all honours: membership to the prestigious 'Académie des Sciences'. The elite nature of this ancient French institution was epitomized by the fact that only six members could hold seats in the medical and surgical section at any one time. Members of each section would present to the vote of the entire body, a list of candidates to replace a deceased colleague. Charcot was first presented in 1878 as a candidate to fill the seat of Claude Bernard. The physiologist E. J. Marey (1830-1904) was elected with 40 out of the 58 votes, while P. Bert, Charcot, and Gubler received respectively 15, 3, and 1 votes[48]. He was presented again in 1882 to take over Bouillaud's place, but Bert, who presented his candidacy while being Minister of Education, was chosen. In February 1883, the death of

[46]The Festivities of the Congress, *B.M.J.*, 1881, p.304.

[47]The professors of the Faculty of Medicine present were: Charcot, Hardy, Verneuil, Peter, Ball, Béclard, Parrot, Fournier, and Bouillaud.

[48]Académie des sciences, *Le Progrès Médical*, 1878, p.969.

the retired surgeon, Jules Germain Cloquet(1790-1883), gave Charcot an opportunity to compete again. By then, three out the five members were friends of Charcot's from the 'Société de Biologie': Bert, Marey and Vulpian. The others were fellow professors at the Faculty. Charcot's work was presented by Vulpian and Bert to the general assembly of the Academy. Charcot was elected by 46 votes against 12 for the anatomist Sappey. This, I believe, was another example of the increased institutional power members of the 'Société de Biologie' had acquired over the years. By selecting Charcot, they held four of the six seats. It therefore comes as no surprise that all new members selected until the early 1890's were also members of the Society: Brown-Séquard (1886), Bouchard (1887), and Verneuil (1887). However, Charcot's election was not free of controversy.

Charcot was deeply involved in research on hysteria and hypnotism. His work was criticized both in France and abroad by the early 1880's. Some saw his involvement in this type of investigation as unscientific, and for this reason opposed his candidacy to the highest scientific assembly. Undoubtedly, this was only one of the reasons behind the opposition to his selection where personal rivalries were also at play. Certainly his opponent, Sappey, was known to hate Charcot[49]. However, the exact nature of these conflicts is impossible to establish, though a general discussion in the next chapter will provide insights into the matter. What is known is that on the eve of the election, a leading Paris newspaper published a vitriolic article under the pseudonym of 'Ignotus', vehemently criticizing the 'maître' of the Salpêtrière[50]. Charcot many years later found out that the author was the baron Félix Platel (1833-1888), who confessed he had written the article on behalf of three of Charcot's colleagues[51].

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[49]Faculté de Médecine; concours d'agrégation, *Le Progrès Médical*, 1874, p.791.

[50]Extensive research in Paris did not uncover Ignotus' article. Félix Patel was a famous collaborator of the right-wing paper *Le Figaro*.

[51]LALLEMAND: Allocution prononcée au nom de l'Académie des sciences..., *La Revue Neurologique*, 1925, p.1145.

Charcot took the animadversion in his stride and enjoyed his victory with his friends and disciples. As was the custom in those days, a banquet was organized to celebrate the election.

Close to 150 guests attended the festivity chaired by three of Charcot's best known pupils: Bouchard, Joffroy and Ballet. Addresses by Bouchard, Joffroy, Charcot, and a letter from Bert, read by Liouville, were reprinted in various medical journals[52]. It was clear from the outset that this was very much a school gathering. As Bouchard said to Charcot: "You have managed our affairs well. Today it is not only a feast for the patron, but also for his followers"[53]. Charcot's answer to Bouchard's warning that there was a danger that by entering the Academy he could become a "reactionary", was in keeping with his character: "I believe, like you, that I will never be a conservative, never will I be tormented by an instinctive horror of novelty, it is not part of my constitution"[54]. This statement was in agreement with the claim that Charcot and his acolytes of the 'Société de Biologie' perceived themselves as progressive, at least in science, and in the case of Charcot, one could add, in politics. Charcot also asserted again his fidelity to French anatomo-pathological methodology, as the supreme means of reaching truth in human biology. His belief in the preeminence of this methodology over physiological experimentation will be discussed in detail later in this chapter.

Therefore, during this period, Charcot was very much in the medical limelight. Furthermore, his work on hysteria and hypnotism gave him the status of a public personality. During the 1880's, two often neglected events were also responsible for his staying in the public eye. His friend,

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[52]DE RANSE: Banquet offert à M. Charcot, *Gazette medicale de Paris*, 1883, pp.593-5, and Banquet offert à M. le professeur Charcot, *Le Progrès Médical*, p.999-1001.

[53]"Vous avez bien conduit notre barque. C'est aujourd'hui la fête du patron, c'est aussi le fête de l'équipage" [*Ibid.*, p.594].

[54]*Ibid.*, p.594.

the politician Gambetta, after shooting himself by accident in the left hand on 27 November 1882, died three weeks later of an unrelated retroperitoneal infection. Charcot, and many other republican, not to say 'opportunist', physicians were summoned in consultation[55]. The progress of his illness was followed in both the medical and lay press. The gunshot injury healed rapidly, which explained the initial publicized prognosis of surgeons Verneuil and Lannelongue that the politician would recover swiftly[56]. However, Gambetta started suffering from abdominal complaints, and it was then that Charcot was officially consulted. He had visited Gambetta as a friend earlier in his illness, yet, when he examined him as a consultant a few days later, his diagnosis and prognosis were to prove accurate, and Gambetta succumbed on New Years Eve 1882[57].

Charcot's consultation was to publicize his stature as one of the leading medical consultants in Paris. In fact, one should never forget that much of Charcot's fame was due to his prestigious and extensive national and international clientele. It had included financiers and political dignitaries from the days, immediately after graduation, when he travelled to Italy with the banker Benoit Fould. Guillain gave a few examples of his most famous patients: the Emperor of Brasil, the Queen of Spain, and the Grand Duke of Russia[58]. It was known that many literary and artistic personalities, such as Alphonse Daudet, were also patients and friends of his[59]. The importance of Charcot's vast clientele in spreading his fame is made clear from the following quotation from his student Pierre Marie:

"...patients from all over the world flocked to the Salpêtrière...One can imagine in what state of mind these people, who, after having heard often

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[55]Other physians who served as consultants were: Lannelongue, Cornil, Verneuil, Trélat, Brouardel, and Siredey [Blessure et maladie de M. Gambetta, *Le Progrès Médical*, 1883, pp.77-9].

[56]Blessure et maladie de M. Gambetta, *Le Progrès Médical*, 1883, pp.94-95.

[57]*Ibid.*, pp.95, 115-7 and 152-5.

[58]*Op. cit.* 36, p.18.

[59]GELFAND: Medical Nemesis..., *Bulletin of the History of Medicine*, 1986, p.157.

fantastic stories, had taken the road like pilgrims... It is obvious that most of these sick patients were 'névropathes', inclined to respond to any suggestions. Therefore, many 'miraculous cures' would take place, which were accompanied by a chorus of praise for the 'Maître'. However, let us put aside the rather vulgar nature of popular enthusiasms, though it is most often the true harbinger of glory. Charcot's fame luckily was founded on more solid bases."[60]

Though Marie was right as to the more solid basis of Charcot's medical fame, his popular fame was certainly not only a reflection of the latter, and lip service by his patients must have played an important role. The publicity given to Gambetta's death and other minor public issues such as the fact that Charcot was one of the physicians consulted by the Government on the controversial issue of divorce in 1883, all contributed to the 'Maître' of the Salpêtrière's status as a true celebrity[61] . However, one of the greatest means of fostering his medical and public fame was Charcot's exceptional gift to ensure the fidelity of his students, in other words, his skills as mentor of the School of the Salpêtrière.

**Charcot and his School of the Salpêtrière**

Charcot, to borrow Bouchard's words, was an "accoucheur d'hommes" (a man-maker)[62]. Much like his own mentor Rayer, Charcot had the gift of surrounding himself with young hardworking pupils who were thereafter reverent to their 'chief'. Charcot's following was to enter history as the 'Ecole de la Salpêtrière'. Though the label was supposedly coined by Béclard in the early 1870's, and certain students of Vulpian's claimed that the latter was also one of its founders, by the 1880's Charcot was seen as

[60]MARIE: Eloge de J.-M. Charcot, *La Revue Neurologique*,1925, p.744.
[61] *Archives de Neurologie*, 1883, p.261-264. The other physicians consulted were Magnan and Blanche.
[62]Banquet offert à M. le professeur Bouchard..., *Le Progrès Médical*, 1887, p.29.

the sole head of the School[63]. This section consists of an analysis of this social gathering to show the mutually advantageous nature for Charcot and his pupils of their relationship. First we will provide a 'feeling' of the status and state of the school in the mid-1880's, then suggest the reasons for Charcot's success over the years in recruiting ambitious students. Lastly, we will emphasize the fact that the success of his students in acquiring academic jobs all over the country largely contributed to his national fame.

One can arbitrarily divide Charcot's students into two generations: those who were his interns or assisted him in Faculty laboratories until 1876, and his later students. In 1876, Pitres was his intern, he was the last of Charcot's students to become a full professor during Charcot's lifetime. The reason for such a division, is that the first generation,as opposed to the second, benefited from Charcot's academic patronage to achieve the highest echelon of the educational hierarchy before his death. In many ways, the first group fared much better than the second, for reasons which will become obvious in the last chapter.

As we already suggested, the 1880's were the period when Charcot was at the peak of his fame, the counterpart being academic and professional authority. This was typified by the 1887 election of his student Charles Bouchard to the 'Académie des Sciences'. This, like the appointment of Charcot four years earlier, was seen as a festive occasion for the entire School. Following Bouchard's election, Bourneville whose reverence for Charcot and strong feeling of belonging to his School has been repeatedly evidenced in the previous chapters, pushed coterie insolence to publishing a list of all of Charcot's interns up to 1881, to show to the medical world what he thought was an "instructive enumeration"[64].

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[63]CAMUS: La leçon d'ouverture du professeur Dejerine, p.517.

[64]BOURNEVILLE: Les internes de M. Charcot..., *Le Progrès Médical*, 1887, p.471.

## TABLE 5.1: Professional Position of Charcot's Ex-interns in 1887[1]

| | |
|---|---|
| 1862 -M. SOULIER, | professor (Faculty of Lyon). |
| 1863 -M. CORNIL, | professor of pathological anatomy (Faculty of Paris), member of the 'Académie de médecine', 'médecin des hôpitaux'. |
| 1864 -M. BOUCHARD, | member of the 'Académie des sciences'. |
| 1865 -M. COTARD, | well known 'aliéniste', vice-president of the 'Société médico-psychologique'. |
| 1866 -M. BOUCHARD, | second year at the Salpêtrière. |
| 1867 -M. LEPINE, | clinical professor (Faculty of Lyon), 'médecin des hôpitaux de Paris'. |
| 1868 -M. BOURNEVILLE, | 'médecin aliéniste' of Bicêtre. |
| 1869 -M. JOFFROY, | 'agrégé' (Faculty of Paris), 'médecin des hôpitaux'. |
| 1870 -M. MICHAUD, | 'chirurgien des hôpitaux' of Lyon, prematurely taken from science. |
| 1871 -M. MICHAUD, | second year at the Salpêtrière. |
| 1872 -M. HANOT, | 'agrégé' (Faculty of Paris), 'médecin des hôpitaux'. |
| 1872 -M. GOMBAULT, | 'médecin des hôpitaux'. |
| 1873 -M. DEBOVE, | 'agrégé' (Faculty of Paris), 'médecin des hôpitaux'. |
| 1874 -M. PIERRET, | professor (Faculty of Lyon). |
| 1875 -M. RAYMOND, | 'agrégé' (Faculty of Paris), 'médecin des hôpitaux'. |
| 1876 -M. PITRES, | dean (Faculty of Bordeaux). |
| 1877 -M. OULMONT, | 'médecin des hôpitaux' |
| 1878 -M. RICHER, | whose works on 'hystéro-épilepsie' are well known. |
| 1879 -M. BRISSAUD, | 'agrégé' (Faculty of Paris), 'médecin des hôpitaux'. |
| 1880 -M. BALLET, | 'agrégé' (Faculté of Paris), 'médecin des hôpitaux'. |
| 1881 -M. FERE | 'médecin aliéniste' of Bicêtre. |

[1]Translation of table in: BOURNEVILLE: Les internes de M.Charcot à la Salpêtrière (1862-1881), *Le Progrès Médical*, **23**, 1887, p.471.

To this list, Bourneville added the following comments:

"This lengthy list is not without interest. It illustrates the beneficial influence on minds a healthy intellectual discipline can exert at a certain time in their development. If all the interns, which have followed each other for the past twenty five years at the Salpêtrière, have achieved either celebrity, medical notoriety, or at least in all cases a high professional position, the sagaciousness of their selection was the least important factor. It was rather the atmosphere, so specially favourable to work along lines in agreement with each and everyone's tendencies and predilections, constantly encouraging personal and original research, which played the determining role. Furthermore, it shows the value for a researcher of being guided by a sound and liberal teacher, of which only men who have the good fortune of having a *Mentor* can truly appreciate."[65]

[65] *Ibid.*, p.471.

Therefore, Bourneville saw three major reasons for the success of Charcot's students: (1) intellectual discipline , or in Charcot's vocabulary a 'method', (2) work-oriented atmosphere, where student individuality and predilections were respected, and (3) a true mentor to supervise their work. All these school characteristics found their echo in Bouchard's speech during the banquet given in his honour. At the head table sat the guests of honour: Charcot, Chauveau and Pasteur. On the question of method, he stated: "The method is not my own. As I described it earlier, it was imparted to me 23 years ago, at a time when my greatest pride was to claim: I belong to the School of the Salpêtrière"[66]. Bouchard's independence of character was well known. However, he himself acknowledged that it was under Charcot's influence that he had developed his own way: "It is also there that I learned that one needs to work out one's own doctrine"[67]. He also explained the important role Charcot played as his mentor: "...M. Charcot, you have been the mentor I have chosen. In fact, you have been more than my mentor; you have imparted to me your powerful intellectual discipline, you are my intellectual father (père intellectuel)"[68]. However, as Bouchard realized, Charcot was more than an intellectual father, he was also the strongest and most faithful promoter of his pupil's career: "In my election... I mostly recognized the firm and dedicated action of a goodness that I have been acquainted with since my second year of internship, and which has never failed since"[70]. Similar statements were made by other Charcot students, for example in 1883 Cornil would state, that he " owed much of what he was" to his mentor[71]. This last point leads us naturally to a discussion of what Charcot offered his students, what attracted ambitious students to his teaching.

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[66] *Op. cit.* 62, p.30.
[67] *Ibid.*, p.30.
[68] *Ibid.*, p.30.
[70] *Ibid.*, p.30.
[71] Société Anatomique..., *Le Progrès Médical*, 1883, p.1052.

What did Charcot offer to his students professionally? The answer is manifold: first, association with a teaching that was seen as 'progressive' from the early 1860's; second, promotion of candidates for membership to various scientific societies; third, access to various periodicals for the publication of their work; fourth, support for various 'concours' and medical appointments; and lastly, jobs immediately after graduation in Charcot's own service. The first issue having been reviewed in the first chapter, we will concentrate on the others.

As discussed in the first chapter, in the 1860's, Charcot had all his interns elected as members of the 'Société de Biologie', during or just following their stay in his service. However, by the early 1870's, his students would also be ensured a membership to the 'Société Anatomique'. Charcot was president of this society between 1872 and 1883. As Cornil stated in the ceremony when Charcot stepped down as president: "You have replaced Cruveilhier whose age and distant retirement had compromised the Society's existence; you brought it back to life and reconstructed it"[72]. Charcot had been a member of the society since 1849, but in 1872 he took over the presidency of this gathering of the "elite of the 'internat', who intends to pursue a scientific career and compete in the concours..."[73]. This provided him with a great opportunity to impose his views on pathology and an audience for his students' works. It also provided him with a way to assess potential pupils. I would argue that his presidency of this society was a vantage point for recruiting ambitious pupils and diffusion of his works and those of his School. This no doubt guaranteed that ambitious students would see Charcot as a desirable mentor and promoter of their careers. Charcot would state that the Society was made up of "...the youth from which was recruited the best of our

[72] *Ibid.*, p.1052.
[73] *Ibid.*, p.1052.

medical aristocracy"[74]. However, publication was becoming an increasingly important factor in the selection of individuals for academic promotion in the 1880's. This was typified by the 1887 reform of the agregation examination which consisted in a presentation of the candidates' scientific publications rather than the submission of a thesis. Therefore, Charcot's control of various publications provided a competitive appeal over other professors of the Faculty[75].

By the late 1880's, Charcot was truly at the head of a scientific publishing empire which Bourneville as its chief editor. Table 5.2 lists all the publications over which Charcot had some editorial control.

Appendix VI shows a partial study of when Charcot's interns became collaborators of the *Archives de Neurologie* and the *Progrès*. It is clear from this table that Charcot's interns had direct access to these two journals to publish their research. In fact, either during their externship, internship or immediately after, most became collaborators of either or both journals. Therefore, Charcot provided his pupils with numerous publishing outlets for their papers.

However, Charcot's patronage of his students in various 'concours' was probably the greatest factor ensuring fidelity on the part of his pupils. It was common knowledge that powerful mentors could have their way in the various official competitions. The *Progrès*, in an editorial on the desirable changes to be made to the agregation 'concours', stated: "It is certain that nepotism has, does and will always be important at the Faculty

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[74] *Ibid.*, p.1052.

[75] "During the Third Republic, research and publication were unquestionably key elements in any successful academic career" [WEISZ: *The Emergence of Modern Universities...*, 1983, p.196]. 95 medical journals were published in Paris in 1880 [LABOULBENE: Histoire du journalisme médical, *La Gazette Médicale*, 1880, pp.629-30]. For details on the 1887 modifications to the 'concours d'agrégation', see: Réforme du concours d'agrégation, *Le Progrès Médical*, 1887, p.231; and Arrêté ministériel..., *Le Progrès Médical*, 1887, p.113.

# TABLE 5.2: Charcot's Medical Publications*

| Date founded | Name of the publication | Founder(s), and Editor(s) |
|---|---|---|
| **A-General medical publications:** | | |
| 1-1873 | Progrès médical | F. and Ed.: Bourneville |
| 2-1877 | Revue mensuelle de médecine et de chirurgie | F.: Charcot, Chauveau, Ollier Parrot, and Verneuil, Ed.:Lépine, Nicaise |
| 3-1878 | Année médicale | F.: Charcot, and Bourneville Ed.: Bourneville |
| 4-1869 | Revue photographique des hôpitaux | F.: Bourneville, Rengade, Londe, and Montméja |
| **B-Neuropathological publications:** | | |
| 1-1876-1880 | L'Iconographie photographique de la Salpêtrière | F.:Bourneville, Régnard |
| 2-1880 | Archives de neurologie | F.: Charcot, and Bourneville |
| 3-1888-1914 | Nouvelle iconographie de la Salpêtrière | F.: Bourneville, Richer, and Gilles de la Tourette |
| 4-1893 | Revue neurologique | F.: Brissaud, and Marie |
| 5-1886 | Bulletin de la Société psychophysiologique | |
| **C-General scientific publications:** | | |
| 1-1868 | Archives de physiologie normale et pathologique | F.: Brown-Séquard, Vulpian, Charcot |
| 2-1889-1919 | Archives de médecine expérimentale et d'anatomie pathologique | F.: Charcot |

*This table does not include publications by various societies such as: *Comptes rendus de la Société de Biologie*, and *Le Bulletin de la Société Anatomique*.

of Medicine"[76]. To which they added, that the support of "only one professor, if he is influential enough, may be sufficient to ensure (one's selection)"[77]. Charcot was certainly influential enough, and because of his idiosyncratic views on the true value of the various concours, he undoubtedly did not hesitate to put all his weight in the balance to ensure the success of his students[78]. A few letters preserved at the Wellcome Institute for the History of Medicine show that he did try to rally support for some of his students. For example, he wrote to a friend: "Bourneville talked to me about his problem. As it could have been expected, much opposition has appeared, though he is surely the most deserving. Because of the circumstances, could you provide him with your support."[79]

The great professional success of Charcot's students, must surely be seen as a consequence of his support. As we have seen for Bouchard and Cornil, both recognized and were thankful for Charcot's active patronage. Léon Daudet went as far as to suggest that:

" Forty years ago, French medicine derived much of its prestige from Charcot's full radiance, but it also suffered from his despotism. Not a single selection of professor, associate professor, hospital physician nor gold medalist was made without Charcot's approval"[80].

From the time of the creation of his chair at the Salpêtrière in 1882, Charcot could provide his pupils with a further competitive advantage. His new university clinic made it possible for him to employ his ex-interns as either chief or assistant chief of the Salpêtrière clinic, chief of laboratory or

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[76]Les concours d'agrégation.... *Le Progrès Médical*. 1886, p.353.

[77] *Ibid.*, p.353.

[78]For Charcot's idiosyncratic views on the various 'concours', see: *Op. cit.* 14, pp.64-5.

[79]Wellcome Institute for the History of Medicine, Autograph Letters Collection: Charcot, letter 65659. Unfortunatelly the letter is neither dated nor the name of the correspondent indicated.

[80]DAUDET: Le professeur Charcot ou le césarisme de faculté, in *Les oeuvres dans les hommes*..., 1922, p.197.

chief of anatomy, all of which guaranteed an income and free time for them both to engage in scientific work and prepare for their 'concours' (see Appendix V). These advantages reinforced by a 'propaganda' campaign in the *Progrès*, were surely familiar to young ambitious students[81]. In other words, to become an intern of Charcot's was surely seen as a privileged position for the one who wanted to achieve a high medical position. Daudet stated: "At all levels of the Faculty's hierarchy, the disciples of the supreme mandarin benefited from his patronage. As the field-marshals of Bonaparte, they shared all the jobs and all the honours"[82]. The other side of the coin, was that Charcot himself benefited a great deal from the success of his phalanx of pupils.

It is clear that Charcot was very proud of his students' success. As he stated when he stepped down from the presidency of the 'Société d'Anatomie': "However, in leaving this position, a great consolation was awaiting me, which was to see you (Cornil) be called to take my place, you who honour me by calling yourself my student"[83]. However, the importance of this success was that it ensured domination of his ideas in many medical faculties in France. At the time of Charcot's death, 7 out of the 33 professors in the Paris Faculty of Medicine were protégés of his[84]. More importantly, four out of the five chairs of medical pathology were

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[81]For an example of the *Progrès* propaganda, see: Ouverture du cours d'anatomie pathologique..., *Le Progrès Médical*, 1876, pp.230-1. In this article it is stated: "M. le professeur Charcot a repris son cours lundi dernier, devant un nombreux et sympathique auditoire où l'on distinguait, suivant l'habitude, beaucoup d'internes des hôpitaux et de jeunes médecins, candidats au concours de l'agrégation et du bureau central, qui savent qu'ils trouveront dans ces leçons, avec un exposé aussi complet que possible de l'état de la science sur les sujets traités, des vues nouvelles, des aperçus originaux qu'ils pourront utiliser dans les luttes où ils sont engagés ou qui leur fourniront un point de départ pour des investigations personnelles" [*Ibid.*, p.30].

[82]*Op. cit.* 80, p.198.

[83]*Op. cit.* 71, p.1052.

[84]This group included ex-interns, laboratory or clinical personnel, and students who had persued some research at the Salpêtrière: Bouchard, Debove, Cornil, Hayem, Joffroy, Ch. Richet and Straus.

held by his pupils[85]. This again exemplifies that Charcot's School should not be seen purely as a School of neuropathology, but rather as one of medical pathology. This is a fundamental point. Pathology was seen as one of the pillars on which scientific medicine should be built. Therefore, by training men who took over the teaching of the subject at the Faculty, Charcot ensured that his views, his attachment to the anatomo-pathological mode of thinking in particular, would have a large following. In the two new faculties of medicine created on Paul Bert's recommendation in 1877, Charcot's pupils were also able to find academic jobs, not surprisingly, mostly in internal medicine and pathology. The Faculty of Lyon in fact witnessed a true invasion of Charcot's students. In 1877, of the six professors appointed who were not members of the old Faculty, two were Charcot's ex-interns: R. Lépine was made Professor of Clinical Medicine, and A. Pierret was chosen as Professor of Pathological Anatomy[86]. Soon after, H. Soulier, also an ex-intern of Charcot's, was made Professor of Therapeutics[87]. Another Faculty was created in Bordeaux. Pitres was the only one of Charcot's students to be appointed when it was founded in 1877. Though, initially only an 'agrégé', he was made Professor of Histology in 1880, and in 1887, Dean[88]. Therefore, Charcot found intellectual satellites of his own teaching in these faculties. The great number of Charcot's students involved in pathological research and teaching ensured that his personal anatomo-clinical method had a vast audience.

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[85]Bouchard (General pathology and therapeutics), Debove (Medical pathology), Cornil (Pathological anatomy), and Stauss (Comparative and experimental pathology).

[86]DESPIERRES: *Histoire de l'enseignement médical à Lyon...*, 1984, p.123.

[87] *Ibid.*, p.124.

[88]PERY: *Histoire de la Faculté de médecine de Bordeaux...*, 1888, pp.344 and 357.

**Charcot's Anatomo-clinical Method**

Early on in his career, Charcot adhered to a particular method of medical investigation, and as he stated himself in 1883: "...I have always stayed faithful to ... this method, and, whenever possible, I have asserted its value; never has my position changed on the matter"[88]. His commitment was to what he referred to as 'anatomo-pathological' method, and from 1882, increasingly as the "méthode anatomo-clinique"[89]. The latter, to borrow his own words, was nothing but the previous anatomo-pathological method to which he had "made a few necessary modifications, because of continuous progress"[90]. In the previous section, his pupils' conversion to their mentor's method was reviewed. Charcot's method served as a shared intellectual meeting point. This section does not provide a general history of pathological anatomy in Paris, but rather insists on Charcot's perception of its nature. In doing so we will emphasize four important issues: first, Charcot's desire for his method to be seen as preeminent over physiology in human biological research; second, the success of his campaign in taking the upper hand over physiology in the Medical Faculty; third, the 'unifying function' for his school of this shared method; and lastly, how Vulpian and his followers did not share with Charcot the claim of the superiority of the anatomo-clinical method.

The leading figures of the history of pathological anatomy are: John Hunter (1728-1793), Xavier Bichat (1771-1802), François-Joseph-Victor Broussais (1772-1838), René-Théophile Hyacinthe Laënnec (1781-1826), and Gaspard Laurent Bayle (1774-1816). According to Robin and Littré,

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[88] *Op. cit.* 52, p.595.
[89] CHARCOT: Leçon d'ouverture, in CHARCOT: *Oeuvres complètes...*, vol. III, p.13.
[90] *Op. cit.* 52, p.595.

pathological anatomy in the 1870's had been more or less split into two approaches. Because of their positivist framework, the only valuable study for them was along the lines of Hunter, Bichat and Broussais. However, they thought that the then popular view was more in the tradition of Laënnec and Meckle[91]. They denigrated this approach by referring to it as "transcendent anatomy" (anatomie transcendante)[92]. They stated that the fundamental error committed by its supporters was to believe that it could "... arrive at useful results by finding a distinct method in pathological anatomy itself..."[93] . Charcot, as we will show, belonged to this tradition.

Charcot's introduction to this method must have come while he was studying under his mentor Rayer. Rayer was considered a strong supporter of pathological anatomy all his life[94]. His early commitment can be seen in the title of his 1818 medical thesis: "A History of Pathological Anatomy". Charcot saw Rayer as one of the leaders of the second generation of French promotors of this method, and his allegiance to the Laënnec tradition was never in doubt[95]. Charcot stated in his 1868 'profession of faith' that:

"The exposition of the (anatomo-pathological) docrine, its code, if one can speak in those terms, can be found in one of the first articles of the great *Dictionnaire des sciences médicales* (1812); this document, precious in many respects, was written by two illustrious men: Bayle and Laënnec"[96].

By the 1880's, Charcot was seen as the "ultimate advocate of the anatomo-clinical method"[97]. In Charcot's mind this placed him in the

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[91]LITTRE, ROBIN: *Dictionnaire*..., 1873, p.63.
[92]*Ibid.*, p.1580.
[93]*Ibib.*, p.63.
[94]LABARTHE: *Nos médecins*..., 1868, p.224.
[95]CHARCOT: La médecine empirique et la médecine scientifique...(1868), in CHARCOT: *Oeuvres complètes* ..., vol. VII, p.VI. According to Charcot, the second generation of anatomo-pathologists included: Andral, Rostand, Bouillaud, Cruveilhier, Magendie and Rayer.
[96]*Ibid.*, p.XVII.
[97]Hospice de la Salpêtrière..., *Le Progrès Médical*, 1884, p.968.

purest tradition of the French School of medicine (l'Ecole Française)[98]. Charcot claimed that the history of pathological anatomy in France could be broken down into two periods. He would over the years use different labels for the two, referring to the first as the "anatomie pathologique ancienne" (1868), "macroscopique" (1874), or "première" (1874), while calling the latter simply the "new" (1868), or "histological pathological anatomy" (1868)[99]. The old he equated with the idea that it had taught physicians to "think anatomically"[100]. He saw the new as a product of the combination of the influences of both the physiological thinking of Magendie and others, and the use of the microscope[101]. In other words, he thought that the reform, which according to him took place between the 1840's and the 1860's, had taught physicians to 'think physiologically' and rely on histology when they thought anatomically. This brings us back to the first two chapters, in which we presented Charcot, Vulpian, Bernard, Robin, Broca and many others as activists behind a scientific reform of medicine in Paris largely by promoting the use of the microscope.

Unfortunately, the few reprinted lectures in which he discussed methodology, as eloquent as they may have been, were far from clear philosophical discourses. He never clearly defined the 'new pathological anatomy', nor his 'méthode anatomo-clinique'. Nevertheless, by combining ideas stated in his different writtings, one can come to a definition of what he intended to call the 'anatomo-clinical' method. It should be said however that because these texts were written at very different times during his career, once juxtaposed, their content tends to crystallize a concept which underwent some degree of change during Charcot's career. Two important factors were behind his reshaping of the

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[98] *Op. cit.* 52, p.595.

[99] Op. cit 95, pp. XVIII and XXIII; and CHARCOT: Des rapports de l'anatomie pathologique avec la clinique et la physiologie, *Le Progrès Médical*, 1874, p.165.

[100] *Op. cit.* 95, p.XXI.

[101] *Op. cit.* 95, p.XXI.

definition. First, in defining a field of activity specific for the 'anatomo-clinician', over the years Charcot had to define its boundries with traditional pathological anatomy but, more importantly, with experimental physiology. In other word, for many reasons which we will review below, he had to exaggerate the differences between physiology and his method, and its differences with 'old' pathological anatomy. Second, his replacement of 'anatomo-pathologie' by 'anatomo-*clinique*' in the early 1880's was only to emphasize that for clinical medicine he thought his method, as opposed to physiology and traditional pathological anatomy, should be seen to have an epistemological preeminence.

According to Charcot, the main goal of pathological anatomy was to establish the exact correlations between the symptoms of diseases and their pathological substrates, both at the macroscopic and microscopic levels. These correlations then became the basis of a "rational" nosography[102]. Its research tools were anatomical, histological, and histo-chemical[103]. Charcot saw the value of this method in that it provided a form of "physiological pathology". It did so by closely following the natural history of the morbid processes and their anatomical substrates, and in doing so "trying to seize the most minute transition between the normal and the pathological states"[104]. Furthermore, it was a form of compulsory half-way house between physiology and the clinic, a sort of laboratory where experimental findings could be evaluated, to see if they were applicable to human biology[105]. This last statement could not be accepted by most contemporary physiologists. Physiologists opposed Charcot's position, which Debove described in the folowing way: "Rightly proud of the results obtained exclusively on clinical grounds, Charcot attributed to

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[102] *Op. cit.* 95, 1868, pp.XXII and XV; and *Op. cit.* 89, 1882, p.10.

[103] For Charcot's opinion on the need not to separate histo-chemistry from pathological histology, see: *Op. cit.* 95, p.XXII.

[104] *Op. cit.* 95, p.XXII.

[105] *Op. cit.* 99, p.182.

the clinic a sort of preeminence, and he particularly did not wish to see it subordinated to physiology"[106].

Two debates during the 1870's would force Charcot to alter the tone of his 1868 profession of faith as to the superiority of pathological anatomy over experimental physiology. First, his work on cerebral localization in 1875 would spark a confrontation with the physiologist Brown-Séquard in the 'Société de Biologie'. Second, at the end of the 1880's, a unilateral governmental plan to create a second chair of pathological anatomy at the Faculty would force Charcot to sharpen his position. Both debates will be reviewed because they illustrate that ideological differences, though always present in a latent stage, are only exposed clearly when certain historical events force different individuals to close ranks to ensure social and ideological acceptance of their point of view. These debates show Charcot's willpower to impose pathological anatomy over physiology as the leading method of medical investigation in Paris, and at the Faculty of Medicine in particular.

In March 1875, Charcot started his summer lecture series at the Faculty on "Localizations in Diseases of the Brain and of the Spinal Cord"[107]. These lectures were to become classics in the history of neurology, and, as we have seen earlier, were translated into many languages. However, in Paris, they met with much critisism. Brown-Séquard, co-founder with Charcot and Vulpian of the *Archives de Physiologie Normale et Pathologique*, opposed Charcot's teaching during meetings of the 'Société de Biologie' (December 1875 to January 1876)[108]. Though the debate rapidly became more or less a monologue by Brown-Séquard, Charcot

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[106]DEBOVE: J.-M. Charcot, *Le Bulletin Médical*, 1900, p.7.

[107]CHARCOT: De la localisation dans les maladies cérébrales, in CHARCOT: *Oeuvres complètes...*, vol. IV, 1893, pp. 1-388.

[108]See: *Comptes rendus et mémoires de la Société de Biologie*, 1875, pp.399-426, and 1876, pp.1-41.

having refused to engage in an open polemic with the physiologist, the epistemological question of the value of data provided by experimental physiology on the functioning of the human brain was the basic point of contention from the start[109]. Charcot had clearly stated in his first lecture what he thought was the relative value of physiological and anatomo-pathological facts:

"It is important to determine the basis on which (the concept of cerebral localization) was constructed. To achieve this end, we will have to rely on facts provided by normal anatomy, experimental physiology and lastly clinical observations supported by detailed examination of organic lesions. I could not insist enough on the fact that data provided by the latter approach should always be seen as some of the more important and decisive, because, if the first two can lead in the direction of a localization, only the latter, in the final analysis, will permit one to judge and *provide its proof*, at least when it comes to man, the special subject of our studies."[110]

Charcot, in fact, felt that recent advances in the field of cerebral localization were primarily due to the recent involvement of physicians with the help of an accurate new method of "topographical anatomy of the brain"[111]. This statement came as a surprise from the man who had popularized Ferrier's physiological work in France[112]. Therefore, he had to tone down his statement in following meetings of the Society, by stating that: "one should not believe that I give little value to the results of experimental physiology"[113]. However, he added : "...I do not believe that experimental physiology alone should be seen as able to lead to a knowledge of the function of the different parts of the nervous system"[114]

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[109]The debate lasted from 4 December 1875 to 19 January 1876; yet, during the 18 December meeting, Charcot stated that there could not be any true discussion [*Ibid.*, p.426].

[110] *Op. cit.* 107, p.4.

[111] *Op. cit.* 108, p.399.

[112]The first French translation of Ferrier's work was published in the *Progrès* in 1873-74. They were reprinted in a book which included a lenghty introduction by Charcot and Pitres: *Mémoire sur la localisation...*, 1879, pp.287..

[113] *Op. cit.* 108, p.423.

[114] *Ibid.*, p.423.

. Yet, he did not stop there, and added to the great chagrin of Brown-Séquard: "I believe, that at this point in time, experimentation has contributed almost all it could with the methods presently at its disposal"[115]. He claimed that in final analysis the data provided by clinical research assisted by "topographical pathological anatomy", should be seen as at least equal in value as data provided by experimentation[116].

Charcot's statements were heard loud and clear. He intended that clinical medicine assisted by pathology be seen as the main pilar on which medicine as a science should be built. As he had stated in 1874: "...All branches of biological science must, by helping and controlling each other, work together in the same direction; however, because of its relative seniority and its special relevance to the study of man, in the collective effor, clinical medicine must have a privileged status, a sort of preponderance"[117]. He repeatedly quoted a statement by Claude Bernard, after having refined it to support his claim, that: "One must not subordinate pathology to the authority of physiology. It is the opposite that one must do..."[118]. However, Bernard's position was clearly the opposite. In January 1876, while the discussion at the 'Société de Biologie' was still raging, Bernard stated at the beginning of his first lecture of the year at the 'Collège de France': "medicine should be a part of physiology"[119]. The debate, on whether physiology or clinical medicine assisted by pathology should have the epistemological upper hand in

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115 *Ibid.*, p.423.

116 *Ibid.*, p.1.

117 *Op. cit.* 99, p.182.

118 Charcot used this quote, in a longer form, in 1868 [*Op. cit.* 95, p.XXVI], and in his 1882 opening lecture [*Op. cit.* 89, p.9]. Charcot's most significant alteration was the replacement of Bernard's statement that following the clinical observation of pathological phenomena "they should be analysed experimentally to search for the physiological explanation", simply by: "one should then search for a physiological explanation"[BERNARD: *Introduction...*, Paris, 1984, p.281, and CHARCOT: *Op. cit.* 89, p.9]. This, obviously to omit any reference to experimental physiology.

119 Ouverture du cours de médecine au Collège de France: M. Cl. Bernard. *Le Progrès Médical*, 1876, p.8.

medicine, was certainly not new. Yet, Charcot's clear position was to place him at the head of one camp. However, the tension was intentionally kept under cover as much as possible, probably because all felt that an open debate on the issue could only damage the image of medicine as a unified *bona fide* science. This was clear in Paul Bert's 1878 address, following his election to the presidency of the 'Société de Biologie':

"New members should not be concerned about the sterile debates about the definitions of observation and experimentation, or the preeminence of clinical medicine or of physiology. All we ask from them is to engage in scientific research..."[120]

In February 1880, a second event would rekindle the debate. The Medical Faculty was informed that the Minister of Education had requested that a second Chair of Pathological Anatomy be created at the Hôtel-Dieu Hospital[121]. The Faculty reacted quickly to what it saw as a unilateral decision, and appointed a committee to study the proposal. It was composed of: G. Sée, Lasègue, Verneuil, Le Fort and Charcot. They rejected the need for the new chair on various grounds. However, of interest in the context of our analysis, was the strong reaction to the epistemological basis on which the project had been presented. The ministerial proposal stated: "...pathological anatomy is the scientific basis of the teaching of medicine"[122]. Sée, in his report, retorted that this was a form of "scientific tyrany", an effort to impose an "official philosophy"[123]. However, Sée had to add that though: "...there are some clinicians among us who share this view (i.e. on the committee), they also rely in their work on experimental findings"[124]. The clinicians referred to no doubt included Charcot. In fact

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[120]Bert président de la Société de Biologie. *Le Progrès Médical*. 1878. p.999.

[121]Nouvelle chaire d'anatomie pathologique. *Le Progrès Médical*. 1880. p.224.

[122]DE RANSE: Projet de création d'une chaire d'anatomie pathologique pratique..., *Gazette Médicale de Paris*. 1880. p.141.

[123]Rapport sur le projet de création d'une chaire..., *Le Progrès Médical*. 1880. p.339.

[124]*Ibid.*, p.339.

Charcot himself had asked in 1878 that the laboratories of the Hôtel-Dieu be under the control of the Professor of Pathological Anatomy, but to no avail[125]. However, when the controversy was resolved, all the funds proposed for the new chair were granted to Charcot to create a Pathological Anatomy Institute at the 'Ecole Pratique'[126]. Charcot had played his cards right, and during one of his lectures in which he discussed the creation of the new chair, he did not repeat any of the claims he had formulated before on the preeminence of his 'anatomo-clinical' method over physiology[127]. He probably knew that by not engaging in a polemic, he could, with the help of a few of his political friends, achieve his 1878 goal of improving the facilities for the teaching of his pet subject. However, Sée's statement was clear enough to show that the Faculty was divided on the fundamental epistemological issue.

Though Charcot did not try to publicly impose his opinion again during the 1880 controversy, his position appeared, if anything, hardened. He insisted more and more on the issue that it was clinical medicine which should have the last word. In 1882, modifying his 1874 statement, he replaced the relatively innocuous statement that the clinic "must have a privileged status, a sort of preponderance", by: "...I maintain that in the collective effort (of all the branches of the biological sciences), the preponderant role, the supreme jurisdiction will always belong to clinical medicine (la clinique)"[128]. His increased emphasis on the epistemolgical superiority of data provided by clinical medicine, was clearly illustrated in his replacement of 'pathological' by 'clinical' anatomy. This shift certainly placed him even more in the Laënnec tradition of pathological anatomy. It

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[125] *Op. cit.* 122, p.141.

[126] DE RANSE: Faculté de médecine de Paris: enseignement pratique de l'anatomie pathologique, *Gazette Médicale de Paris*, 1880, p.292.

[127] CHARCOT: L'enseignement actuel de l'anatomie pathologique..., *Le Progrès Médical*, 1880, pp.325-38.

[128] *Op. cit.* 99, p.182; *Op. cit.* 89, p.22.

also increased the appeal of Charcot's views to the majority of physicians in Paris who were simple clinicians, and somewhat critical of the academic scientists who practiced little or not at all.

The 1880's, was the time when Charcot's ideas on the best means to achieve medical progress supplanted physiology at the Faculty of Medicine. Over this period, as already mentioned, the various chairs of pathology came to be occupied by Charcot's students. In fact, by the end of the decade only one out of the five professors of pathology at the Faculty could not call himself a Charcot student. However, George Dieulafoy (1839-1911) clearly proclaimed his scientific allegiance. In 1887, as new Professor of Medical Pathology, he stated that pathological anatomy would often play a preponderant role in his lectures. In his words, pathological anatomy "having been responsible for Professor Charcot's creation, so to speak, of the true rational pathology of the nervous sytem"[129]. The increased importance of pathological anatomy as the leading method of medical investigation was made easier by the fact that physiology was going through a crisis in the 1880's. The death of Claude Bernard in 1878 had left a vaccum. At the Faculty of Science, Paul Bert was more involved in politics than research. Béclard, the Faculty of Medicine's Professor of Physiology was not a laboratory physiologist, and furthermore was kept away from his teaching by his position as Dean. Brown-Séquard, at the 'Collège de France', was not a very popular teacher. Furthermore, as the *Progrès* pointed out in two 1884 editorials, few young scientists got involved in the field because there were very few professional openings[130]. In other words, the 'Queen of biological sciences', as physiology was often called, lacked strong promotors. The *Progrès*

[129]Faculté de médecine: Inauguration du cours de pathologie interne..., *Le Progrès Médical*, 1887, p.91.

[130]La physiologie à la Faculté de Médecine and La physiologie dans les diverses écoles de médecine, *Le Progrès Médical*, 1883, pp.877-8, and pp.878-9.

concluded its editorial, by saying: "In France physiology is in jeopardy"[131]. This state of affairs, no doubt made the campaign by Charcot and his followers easier. However, opposition by physiologists such as Charles Richet, who though he had studied with Charcot at the Salpêtrière in the 1870's was made Professor of Physiology of the Faculty in 1887, ensured that the issue of epistemological superiority was never resolved. Richet, who was also editor of *La Revue Scientifique*, wrote in 1888:

> "I am even ready to agree with M. Charcot, that medicine, helped by a scholarly pathological anatomy, has powerfully served physiology. Futhermore, I would concede that thorough and time consuming clinical observation has done at least as much as physiology in the analysis of the functions of the brain and spinal cord. However, I do not see in this any contradiction. That medicine helps physiology is obvious, but it is also obvious that without physiology medicine would still be as primitive and empirical as at the time of Hippocrates."[132]

During the 1880's, Charcot and his method had a semblance of epistemological hegemony at the Faculty. One can easily conceive that in these cicumstances, his pupils and the members of the Anatomical Society did not fear to rally around the master. Statements of reverence to the teacher who taught them the 'true method' are found in many of the opening lectures of his students as they became professors during the 1880's and early 1890's[133]. Charcot himself was convinced of the truth value of his approach, and that he had played a significant part in the profound changes in medicine during his lifetime. He stated in 1892 that the 'good cause' he had promoted over the years: "... has, for a long time now, triumphed all along the line; we do have a certain right to

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131 *Ibid.*, p.879.

132 RICHET: La physiologie et la médecine, *La Revue Scientifique*, 1888, p.360.

133 For examples: BOUCHARD: *Op. cit.* 62, p.29, and STRAUS: La médecine expérimentale et la bactériologie..., *La Revue Scientifique*, 1888, pp.513-7.

congratulate ourselves for the part we played in its success"[134]. His message was clear to whoever wanted to listen: "The method has been tested and it's safe"[135].

## The Last Years of Vulpian's Career

Following his resignation as Dean of the Faculty in November 1881, Vulpian, except for two events, more or less vanished from the medical limelight. After reviewing the immediate aftermath of his resignation, we will turn to the highlights of his declining career. We will lastly analyze the first documented episode of a rivalry between one of his followers and the Salpêtrière School.

After his resignation, Vulpian became aware of the potential political backlash of his decision. On 7 January 1881, Bottentait, the editor of *La France Médicale*, after having been briefed on the issue by Vulpian himself, published an article stating that Bert's Ministry had decided to cut the laboratory budget of the Professor of Experimental Pathology[136]. The polemic was discussed in *Le Temps* [137]. The republican paper claimed that the accusations of *La France Médicale*, that the Minister because of a grudge had cut the credits for the laboratory by a sixth, and withdrawn

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[134]He defined "la bonne cause", in these terms: "In those days, the goal, which was much of a novelty, was to enlighten clinical medicine, to transform it if possible, though neither by doing it violence nor by not acknowledging its preeminence in practical matters. The goal, I say, was to edify medicine by the accepted influence of anatomical sciences, the latter rejuvenated by histology and patho-physiological experimentation" [Banquet offert à M. le Professeur Charcot, *Le Progrès Médical*, 1892, p.449 ].

[135]*Ibid.*, p.450. However, Charcot's enthusiasm for pathological anatomy and clinical medicine to the virtual exclusion of physiology was not shared by his friend Vulpian. Trained as a physiologist in Flourens' laboratory, he had refused to concede to Charcot that clinical medicine had contributed more in the study of cerebral localization than physiology [ VULPIAN: Etudes de pathologie expérimentale..., *Le Progrès Médical*, 1876, p.343].

[136]*La France Médicale*, 20 Dec., 1881.

[137]*Le Temps*, 25 Dec., 1881.

funds for the salary of one assistant, were erroneous[138]. The controversy was settled a few weeks later after Vulpian had been reassured by the Dean and others that his credits were never to be altered[139]. However, this event again clearly illustrates the political nature of relations between Government and Faculty.

Following this small crisis, Vulpian went back to his teaching, laboratory work, clinical practice and writing[140]. His name, one last time, was to make the headlines of both the medical and political press in July 1883. The pretender to the throne of France, the 'Comte de Chambort', was severely ill in his home of Frosdorf, Austria. After consultation with various Austrian specialists, including the surgeon Billroth, the king requested to be examined by a French physician[141]. Potain, the Professor of Clinical Medicine at the Necker Hospital, was the first to be called upon. He declined, having to treat a dying colleague. The Comte's representative requested that Potain recommend another consultant. He suggested Vulpian. Potain's conservatism was well known, and can be exemplified by the fact that he was one of the originators of the petition opposing the laicization of hospitals in 1879; a petition which you will recall, Vulpian had also signed. Vulpian's lengthy report, published in various journals after the death of his patient, was clearly very reverent to the dying heir[142]. One could suggest, that though Vulpian was probably not a monarchist, his noble blood undoubtedly made him more sympathetic to the Comte's illness than a 'self made man' such as Charcot. However, the publicity associated with his consultation was not all positive as the

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138 *Ibid.*

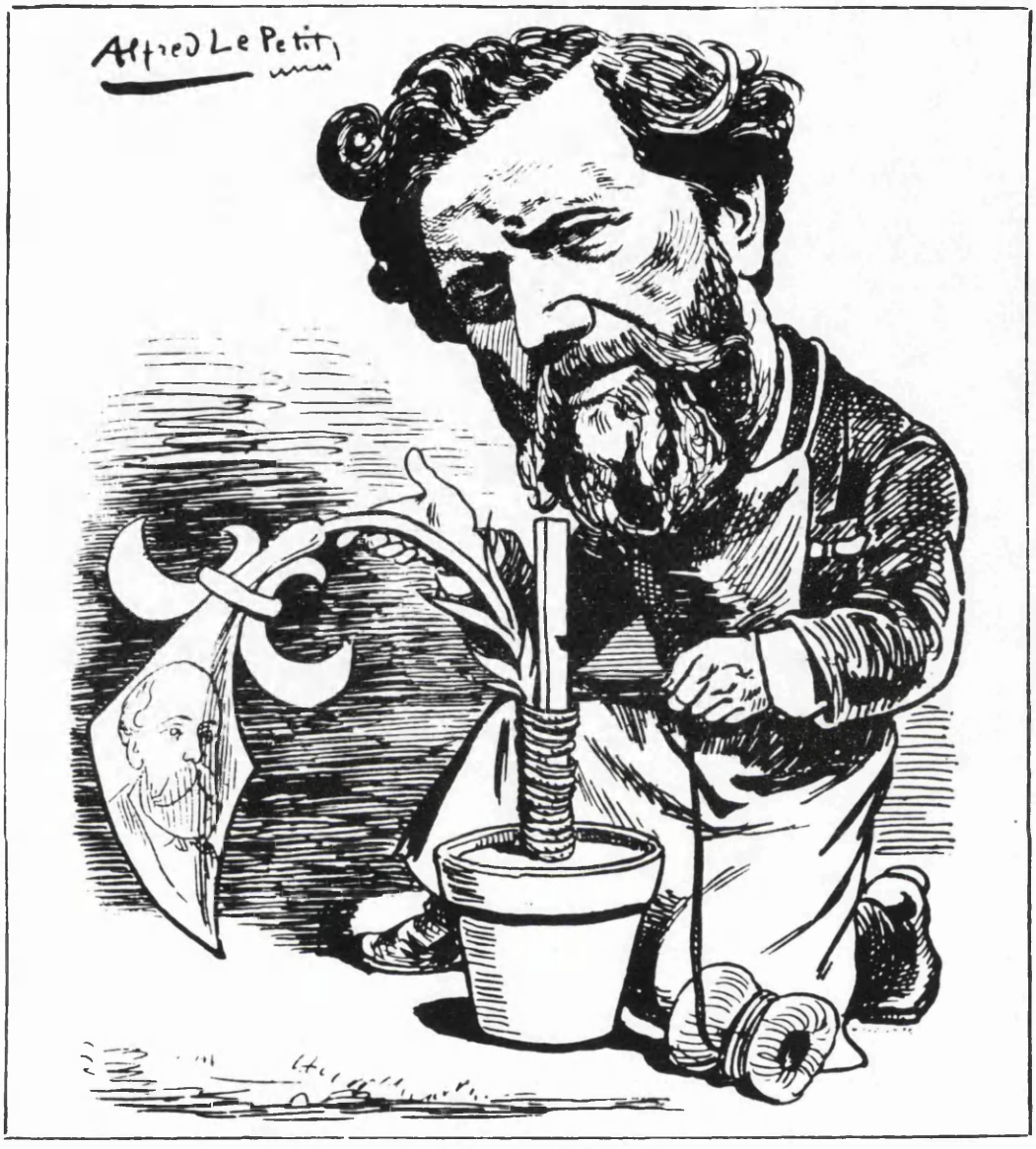
139 Les crédits du laboratoire de M. Vulpian, *Le Progrès Médical*, 1882, pp.33-4.

140 He published in 1882: *Leçons sur l'action physiologique des substances toxiques et médicamenteuses*, 1882, pp.657.

141 VULPIAN: La dernière maladie de M. le comte de Chambord, *Le Progrès Médical*, 1883, p.774.

142 First published in the *Gazette Hebdomadaire*, it was also reprinted *in extenso* in the *Progrès Médical*: La dernière maladie de M. le comte de Chambord. *Le Progrès Médical*, 18823, pp. 756-757, 774-775, 791-793, 815-817, 852-854, and 872-873.

FIGURES DU JOUR




LE DOCTEUR VULPIAN

Vous avez fait un coup de maître,
Dit-on, ô docteur réputé.
Le roi sera sauvé, peut-être ;
Le roi... Mais pas la royauté !

Caricature 2: Le Docteur Vulpian, *Charivari*, 30 Jul., 1883, p.154.

above caricature illustrates. Furthermore, the fact that he had to admit having made an incorrect diagnosis while the patient was still alive did not foster his reputation as a clinician[143].

Vulpian, whose ambitions seemed to always have been more administrative in nature, acquired in 1886 the most prestigious title a scientist could hope for, one which had been held by his mentor Flourens from 1833 to 1867. In July 1884, he was presented as one of the candidates to replace J.-B. Dumas (1800-1884) as perpetual secretary of the physical sciences section of the 'Académie des Sciences'. The physicist Jules Jamin (1818-1886) was elected with 39 votes, while Vulpian obtained 12[144]. However, Jamin died less than two years later, and Vulpian was elected to replace him on 29 March 1886[145]. To Vulpian, this election was no doubt another sign of what he saw as the progress of medicine, which ensured that "... it merited the name of *Science* as much as botany, zoology, physiology, physics and chemistry"[146] . However, while the last scientific medal was pinned to his chest, one of his favourite students was struggling against much opposition in his 'concours d'agrégation'.

The 1886 competition was to be the scene of an apparently overt antagonism between Charcot and Vulpian's pupil: Jules Dejerine (1849-1917). Dejerine was a Swiss-born medical graduate of the Faculty of Paris. His two mentors during his internship were Hardy and Vulpian. His reverence for the latter was lifelong[147]. He had worked for many years in his laboratory. Early on, he focused his work in the field of the neurosciences. He was known in his student days to attend Charcot's

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[143] *Ibid.*, p.852.

[144] Académie des Sciences, *Le Progrès Médical*, 1884, p.486.

[145] Académie des Sciences, *Le Progrès Médical*, 1884, p.298. Vulpian got 26 votes, while M. Milne-Edwards obtained 24.

[146] M. le professeur Vulpian, *Le Progrès Médical*, 1876, p.411.

[147] GAUCKLER: *Le professeur J. Dejerine*, 1922, p.84.

lectures, and was in friendly terms with many of Charcot's students, including Bourneville. He was a collaborator of the *Progrès* between 1877 and 1883; however, though his main research interest was neurological, he never was a collaborator of the *Archives de Neurologie* during Charcot's lifetime. In 1886, four years after having been made 'médecin du bureau central', he decided to compete for the 'agrégation'. He studied for this competition with Charcot's student, Edouard Brissaud (1852-1909)[148]. The jury was composed of Dejerine's mentor Hardy as president, and Charcot, Bouchard, Damaschino, Potain, Straus (agrégé), Roger, Lépine (for Lyon), and Bernheim (for Nancy) as judges[149]. Thirty two candidates registered for the 'concours', knowing that only four would be offered a job in Paris. Brissaud and Gilbert Ballet, two of Charcot's pupils, were part of this group[150]. Since the 1876 competition Charcot had had at least one of his students selected[151]. Gauckler, in his biography of Dejerine, provides much detail on the competition, though no sources are given. It was most likely his mentor, Dejerine himself, or possibly the latter's wife who informed him. However, it was clear, to borrow his words, that during the competition "Vulpian et Charcot ont croisé leurs influences"[152]. Apparently, Charcot opposed Dejerine's selection on the grounds that he had publicly criticized his School. Dejerine, who learned from Féré, then Charcot's private secretary, that the chief was opposing his nomination, decided to

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148 *Ibid.*, p.86.

149 Concours d'agrégation en médecine, *Le Progrès Médical*, 1885, p.449. Substitute judges were: Cornil, Laboulbène, Hayem, and Debove.

150 *Ibid.*, p449. The candidates were: Ballet*, Barth*, Balzer, de Beurmann*, Boinet*, Bourey, Brault, Brissaud*, Brousse*, Brocq, Chauffard*, Chuffart*, Cuffer, Dejerine*, Dreyfus, Dubreuilh*, Faisans, Gaucher*, Grenier*, Netter, Jubel-Rénoy, Lannois*, Lemoine*, Letulle*, Lober*, Merkler, Moussous*, Parisot*, Sarda*, Siredey, Simon*, and Weil*. The (*) implies that the candidate competed to the end, therefore submitted a thesis.

151 In fact, if one calculates the success rate of Charcot's students, one comes to interesting statistics. In the following list, the year of the competition is followed by the name(s) of the successful pupil(s), the names of the one(s) that failed, and the success rate of Charcot's students in percentage: 1876 (Lépine/ Debove, Joffroy, 33%), 1878 (Debove/ Joffroy, Pitres, Raymond, 25%), 1880 (Joffroy, Raymond/ Hanot, 66%), 1883 (Hanot, 100%), 1886 (Ballet, Brissaud, 100%), 1889 (Marie/ Babinski, 50%), 1892( Babinski, Gilles de la Tourette, 0%).

152 *Op. cit.* 147, p.88.

visit Charcot in his home. Glaucker provides a dialogue of this explosive encounter[153]. Dejerine, after claiming his innocence, that he had never denigrated the School of the Salpêtrière, was supposedly told by Charcot that he would not oppose his nomination. Dejerine was selected, but only third after Charcot's two pupils, Brissaud and Ballet. However, as we will show in the last chapter, the followers of Charcot always saw an enemy of their School in Vulpian's student. This was the first documented incident of what was to become a true rivalry between Schools over the years.

By the time Dejerine had acquired the prestigious title of 'professeur agrégé', his mentor was already at the end of his life. Vulpian, who lost one of his sons in 1880, endured the death of his wife in January 1884[154]. A depression followed which forced him to find a substitute for his course at the Faculty[155]. He slowly recovered, but when he was chosen as perpetual secretary of the 'Académie des Sciences' he had already stopped all clinical practice[156]. In many ways, at the age of 60, he had retired from the medical scene. While he was working on infectious pneumonia in his laboratory, he contracted the disease and died a few days later[157].

His death ironically followed Paul Bert's by only 6 months. He had a full academic funeral[158]. The *Progrès* described the funerals at length and ended its article by stating : "Moreover, Vulpian was a man of progress and a supporter of most of the reforms the *Progrès* has promoted over the years"[159]. This, I believe, clearly shows that, though there had been a recent conflict around the 1886 'concours', Charcot's School was still very reverent for their mentor's oldest medical friends. Many physicians,

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153 *Ibid.*, pp.89-90.
154 CAMUS: Vulpian, *Le Paris Médical*, 1913, p.743.
155 *Ibid.*, p.743. and Faculté de médecine de Paris. *Le Progrès Médical*, 1884, p.184.
156 Assistance publique, *Le Progrès Médical*, 1886, p.34.
157 Vulpian died on 17 May 1887.
158 Bert died in Hanoi on 10 November 1886.
159 Nécrologie: M. Vulpian, *Le Progrès Médical*, 1887, p.447.

including Charcot and Brown-Séquard, delivered funeral orations. Of interest were the different point of views Charcot and the physiologist Brown-Séquard had on Vulpian's originality. Charcot, speaking on behalf of the medical and surgical section of the 'Académie des Sciences', emphasized that: "...Early on in his career, Vulpian was forced to realize that pure observations without the help of experimentation were often powerless, on the other hand, experimental facts are almost always without any legitimate application, at least in the field of human pathology, without the final control of clinical medicine"[160]. This statement contrasted with Brown-Séquard's, who, talking of behalf of the 'Société de Biologie', claimed that: "...Vulpian had shown that normal and pathological Physiology could benefit from the comparison of facts provided by experimentation on animals and those contributed by clinical medicine"[161]. Charcot's emphasis on the importance of clinical medicine compared to Brown-Séquard's statement illustrates again the epistemological difference that divided the medical community of Paris at the time.

[160]Discours prononcés aux obsèques de M. Vulpian.... *Bulletin de l'Académie des sciences*, 1887, p.1389.
[161] *Ibid.*, p.1396.

# 6

## CHARCOT'S DECLINE

By the early 1890's, Charcot had not only become the most famous and influential French physician, he was also the most criticised. Fame is a two-edged sword, and Charcot discovered its destructive powers. In his mid-sixties he was starting to be seen as conservative. His reluctance to accept germ theory and his staunch endorsement of morbid heredity as a cause of neurological diseases was to put a damper on the previous unconditional support of his students. In this chapter, we will analyse the different factors which accounted for his decline as the supreme mandarin of the Faculty. We will show that the death of many of his academic and political friends, his controversial research on hysteria, increasing hostility towards his autocratic attitude, the contentious campaigns led by the *Progrès* and his implications in various scandals were all responsible for his fall. Furthermore, we will suggest that his well-known cardio-vascular illness somewhat determined the timing of the apparent revolt against his authority which took place around the 1892 'concours d'agrégation'. We will end by a succinct discussion of the turmoil in which his School found itself after the death of its leader and its implications on the history of French neurology.

## The Decline of Hereditarianism and the Rise of Germ Theory

We have already stressed the importance of pathological anatomy as the methodological basis for much of Charcot's work. We argued that the endorsement by his pupils of this research approach provided cohesion to his School. In this section, we will turn to Charcot's adherence to the mid-nineteenth century theory of morbid heredity. His faith in this theory, compared to the progressive disenchantment of some of his students, will be discussed. I believe this will show a certain medical 'conservatism' on the part of the aging Charcot, an attitude which played an important role in his diminishing repute in the late 1880's and early 1890's. We suggest that the decline of hereditarianism, to be seen in its proper historical context, must be placed in parallel with the rise of bacteriological theory which many of Charcot's leading students embraced. A study of the conceptual shift brought about by germ theory as of the 1870's will show the decreasing favour hereditary degeneracy had in medicine as a whole, and in neurology in particular. Notably, the increasingly perceived influence of syphilis as a causal agent of many neurological illnesses will be presented to suggest that it had an eroding effect on the clinical data base which promoters of hereditarianism had traditionally relied upon to claim its truth value. Unfortunately, though the rise of degeneration theory and hereditarianism have been the subject of recent historical work, the exact chronology of its fall in popularity in French medicine has not been studied adequately, therefore, this section will inevitably fall short of providing a complete explanation of its decline. The emphasis is on the fundamental difference between Charcot and many of his students, to suggest that it played a role in Charcot's own decline.

The concept of mental degeneration, to which Charcot adhered throughout his career, was first presented as a pathological concept in J.E.D. Esquirol's 1838 *Maladies Mentales* [1]. Though Esquirol considered heredity as a "remote cause" of mental disease, his students Jacques Joseph Moreau de Tours and Jules Baillarger, both alienists at the Salpêtrière in the late 1840's and 1850's, claimed that it played a more fundamental role in the etiology of mental diseases[2]. They were joined in this belief by a chorus of other alienists who promoted the etiological importance of heredity in mental and neurological conditions. Prosper Lucas' 1847 treatise, with the works of B.A. Morel and J. J. Moreau during the late 1850's, combined to form a well articulated and appealing theory[3]. It became a conceptual underpining of much of French psychiatric theorizing, at least until the 1890's.

Most historians, who have closely reviewed the original writings on morbid heredity and degeneration all conclude that the concepts were rather vague, a vagueness seen as a rhetorical virtue, not to say a marketable one, both for the theory itself and the professional group which endorsed it[4]. A clear definition of morbid heredity was given by Dowbiggin: "...to be the organic transmission from parents to children of a neuropathic predisposition to mental diseases"[5]. The accumulation of neuropathic predispositions in a family was seen as responsible for a higher incidence of mental degeneracy and other medical diseases in the cohort.

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[1] DOWBIGGIN: Degeneration and Hereditarianism..., in BYNUM et al.: *The Anatomy of Madness*..., 1985, p.190.

[2] ACKERKNECHT: *A Short History of Psychiatry*, 1959, p. 47.

[3] LUCAS: *Traité philosophique et physiologique de l'hérédité naturelle*..., 1847; MOREL: *Traité des dégénérescences physiques, intelectuelles, et morales*..., 1857; and MOREAU: *La psychologie morbide dans ses rapports avec la philosophie de l'histoire*..., 1859.

[4] *Op. cit.* 1, p. 200, and CARLSON: Medicine and Degeneration..., in CHAMBERLIN, GILMAN (eds.): *Degeneration*..., 1985, p.124.

[5] *Op. cit.* 1, p. 188.

Charcot's exposure to these theories must have come early in his medical career, either as a medical student or as an intern at the Salpêtrière in 1852. In fact, at the time of his internship at the old hospice, many of the leading promoters of morbid heredity were on its staff: Baillarger, Ulysse Trélat and Moreau de Tours. His knowledge and endorsement of their views can be clearly found as early as 1857 in his aggregation thesis. He had already mentioned heredity however as a possible cause of chronic arthropathies, second to cold and humidity, in his doctoral thesis of 1853[6]. In his 1868 'profession of faith', Charcot also discussed what he called the "concept of constitutional and diathetic maladies", claiming that though authors had changed the seat of these predispositions at different times in history, the value of its laws came from the fact that they were obtained from multiple clinical observations[7]. Repeated use of this concept can be found in many of his writings[8]. This is exemplified in his work on hysteria where he stressed that though certain environmental "provocative causes" can be responsible for the first manifestations of hysteria, all hysterics are born hysterics, therefore are "hystériques en puissances" until the first symptoms manifest themselves[9]. His commitment to this way of thinking about neurological conditions lasted his whole life[10]. It is not surprising therefore, that some historians view the 1880's as the "hey day of the degeneracy theory" when one recalls the relative hegemony Charcot had over neuropathology in Paris at the time[11]. Furthermore, the popularity of the theory was probably even

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[6]CHARCOT: Etudes pour servir à l'histoire de l'affection..., in CHARCOT: *Oeuvres complètes...*, vol. VII, 1890, p.389.

[7]CHARCOT: La médecine empirique et la médecine scientifique.... in CHARCOT: *Oeuvres complètes...*, vol. VII, 1890, p.XVI.

[8]For examples, see: CHARCOT: Des amyotrophies spinales chroniques, in CHARCOT: *Oeuvres complètes...*, vol. II, 1894, p. 224; and MARIE, CHARCOT: Sur une forme particulière d'atrophie musculaire progressive..., *Les Archives de Neurologie*, 1886, pp.511-2.

[9]CHARCOT: *Hystérie et syphilis...*, *Le Progrès Médical*, 1887, p.151.

[10]MARIE: Eloge de J.-M. Charcot, *Les Archives de Neurologie*, 1925, p.1115.

[11] *Op. cit.* 1, p.188.

more due to the work of his friend and collaborator, V. Magnan[12]. Magnan was a pupil of Morel's, and defended the theory in various national and international forums, including the International Congress of Medicine of Berlin in 1890[13]. Lastly, one must mention the writings of his student Charles Féré (1852-1907) on the "famille névropathique" which ensured a greater cohesion to the theory in the 1880's[14].

The importance of this theory in Fin-de-Siècle medical thinking can be seen by the fact that both in the 1886 and 1892 medical agregation competitions, the question of the role of heredity in neurological diseases was asked[15]. The concept of mental and social degeneration also fascinated the artistic and literary world. It served as an inspiration for Emile Zola who wished to create an 'experimental novel', and J.-K. Huysmans whose work came to symbolize the literary decadent movement in France[16].

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[12] *Ibid.*, p. 194.

[13] Le Progrès à Berlin, *Le Progrès Médical*, 1890, p.89.

[14] FERE: La famille névropathique, *Les Archives de Neurologie*, 1884, pp. 1-43 and 173-91.

[15] DEJERINE: L'Hérédité dans les maladies du système nerveux (Thèse d'agrégation), Paris, 1886, pp.293. In the 1892 'concours', one candidate was asked to present an hour-long lecture on the question of: "Du rôle de l'hérédité dans le développement des maladies du système nerveux" [Faculté de médecine de Paris, *Le Progrès Médical*, 1892, p.190].

[16] Zola's 1893 novel *le Docteur Pascal*, the last of his twenty volume saga of the Rougon-Macquart family, was to provide the reader with a complete hereditary theory to explain the degeneration of this family. The 'Bibliothèque Nationale' has preserved the authors research notes, which clearly show that Zola had carefully read Dejerine's 1886 thesis [ micro. 3110, N.A. Fr. 10290]. Hysmans' famous novel *A rebours*, whose Des Esseintes was to epitomize the male hysteric, was first published in 1884.

However, by the 1890's, the scientific trend turned to one of discrediting this theory, an effort backed by some literary figures[17].

French medicine went through a conceptual shift from the 1860's to the early 1890's. A new causal theory of disease came to play a great role in pathological thinking: germ theory. The most famous promoter in France was no doubt Louis Pasteur (1822-1895). Germ theory early on met much opposition in the Paris medical world, but slowly won enough support to enter the official teaching of the medical faculty in 1880. The man, who first taught bacteriological theory was no other than Charcot's pupil Charles Bouchard[18]. He was soon joined by Cornil, another of Charcot's students. Cornil was clear about the importance of this new discipline in his opening lecture of 1882. He placed the teaching of pathological anatomy by Vulpian and Charcot into an 'old period', to which he opposed a "new" one consisting of the study "of the role of micro-organisms in diseases"[19]. In other words, Cornil saw bacteriological studies as the new trend in pathological anatomy research, insisting that it was compatible with his mentor's favoured method. This was a fundamental statement, because it clearly showed that Charcot's students could be faithful to his method, and still not endorse his causal mode of thinking. Hereditarianism was in essence a causal theory, and germ theory became a rival theory.

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[17]Ackerknecht stated that by the 1890's the scientific community started to attack the theory [*Op. cit.* 2, p. 50]. Alphonse Daudet's 1890 play *l'Obstacle* typified this growing aversion for the concept of morbid heredity. The main character, the young Didier, is prevented from marrying the woman he loves, because his father was mentally ill during the last years of his life. Didier's mentor, Hornus, defending the case of his pupil to the the young lady's tutor, asserts angrily: "Nice, this new science, and above all reasurring; a way of making life more complicated, more sinister, a life which is already neither easy nor gay... Believe me, sir, one must deal with great care with these hereditary laws, they too often condemn innocents and are used too frequently as excuses for vile crimes"[DAUDET: *L'Obstacle*, 1890, p. 66]. The biographical backdrop to Daudet's play was the fact that he himself suffered from locomotor ataxia (tabes dorsalis), a condition then considered as hereditary. He was treated by his friend Charcot. The therapy failed and the two famillies drew apart. [GELFAND: Medical Nemesis..., 1986, p.159].

[18]Evolution des doctrines infectieuses, *Le Progrès Médical*, 1890, p.336.

[19]CORNIL: La chaire d'anatomie pathologique, *Le Revue Scientifique*, 1882, p. 526.

The *Progrès*, after having voiced some scepticism as to the value of Pasteur's teaching early in the 1880's, was soon to endorse it completely[20]. In fact, in 1884 alone, 15 out of its 52 weekly editorials discussed microbiological subjects (29%)[21]. By 1885, the *Progrès* could state in an editorial that the "microbian doctrine" had won the first battle, which was to be taught at the Faculty and widely accepted. It added that the new battle would be to restrain popular enthusiasm[22]. Yet by 1890, the *Progrès* was not ambivalent anymore, it stated that the "infectious doctrines" clearly "lead to the truth"[23]. Therefore, both the general medical public and many of Charcot's followers during the 1880's became increasingly enthusiastic about the work of Pasteur and microbiological research in general. During this transition period, the *Progrès* and *Les Archives de Neurologie* also published various articles by Charcot, Magnan and others opposing the causal role of micro-organisms in diseases of the nervous system, and promoting the dominant etiological role of morbid heredity[24].

Charcot himself, seemed to have followed the application of bacteriological theory to neurological diseases quite closely. Pierre Marie, while head of Charcot's clinic at the Salpêtrière, published an article on the possible association of infectious diseases and multiple sclerosis[25]. This article is of interest for three reasons: first, it showed that Charcot was

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[20]For a very critical article on Pasteur in the *Progrès*, see: JOUSSET DE BELLESME: Conférence de M. Chamberland sur le rôle des microbes..., 1882, pp.268-9. In 1883, in an editorial comment to another critical article by Jousset de Bellesme, one finds that the *Progrès* had become more sympathetic to Pasteur's theory [ Footnote to: JOUSSET DE BELLESME: Du danger des théories parasitaires, 1883, p.188].

[21]Most of these articles were writen by the new secretary of the *Progrès* : P. Bricon [pp. 43-6, 112-3, 130-3, 167-9, 229-30, 520-1, 583-6, 643-5, 660-2, 735-6, 759-61, 814-6, 869-72, 1011-13, and 1074-5].

[22]Où en est la doctrine microbienne?, *Le Progrès Médical*, 1885, p.519.

[23]*Op. cit.* 16, p.338.

[24]CHARCOT: *Op. cit.* 8, 511-512; RAYMOND: Hystérie et syphilis..., *Le Progrès Médical*, 1888, p.263-4.; and MAGNAN: Considérations générales sur la folie; des héréditaires ou dégénérés, *Le Progrès Médical*, 1888, pp.1089-91 and 1108-12.

[25]MARIE: Sclérose en plaques et maladies infectieuses, *Le Progrès Médical*, 1884, pp.287-9, 305-7, 349-50, and 365-66.

tolerant of his pupil's excursion into bacteriological pathogenesis (this was even more striking in this case, when one recalls that multiple sclerosis was one of the diseases to which Charcot's name was most closely associated); second, the fact that Marie was interested in the possible syphilitic etiology of multiple sclerosis because he had been an intern of Bouchard's in 1881; lastly, that Marie clearly stated that Charcot himself provided him with the German references in which the issue of the possible infectious etiology of multiple sclerosis had first been discussed[26]. This last point, illustrated that Charcot was aware of the literature on bacteriological theory, at least when concerned with neurological diseases.

Marie published another article along the same lines in 1887. This time he specified which etiological mode he was rejecting: "Most authors who have studied the question of the etiology of epilepsy have agreed that *neuropathic heredity* plays a determinant role; it is hard for me to share this view"[27]. To this he added: "...the more I have examined epileptic patients, which are numerous in my mentor's clinic, M. the Professor Charcot, the more I became unsatisfied with this notion of heredity"[28]. I submit that Marie's short article was just one example of a growing distrust in morbid hereditary theory as a mode of causal explanation. The significance of this paper, for which Marie found himself in hot water, was that it proposed an infectious etiology for the quintessential hereditary disease: epilepsy[29]. Of all the possible causes Marie proposed, syphilis again was the one he thought most likely[30].

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[26] *Ibid.*, p.287.

[27] MAIRE: *Note sur l'étiologie de l'épilepsie, Le Progrès Médical*, 1887, p.333.

[28] *Ibid.*, p.333.

[29] Marie in a 1927 comment on his 1887 paper mentioned the criticism and moquerie which he had then faced [Quelques considérations sur l'étiologie et sur le traitement de l'épilepsie, in MARIE: *Travaux et mémoires*, vol. 2, 1928, p.216]. Dowbiggin discussed the key nature of epilepsy in hereditary research, for which in 1868 it had been chosen by the 'Société Medico-Psychologique' as the condition to be studied in establishing the truth value of morbid heredity [ *Op. cit.* 1, p.193].

[30] *Op. cit.* 27, p.334.

We have just reviewed, albeit rather briefly, the increasing popularity of 'thinking bacteriologically' about the cause of diseases in the 1880's, in Paris. The clash between this concept and hereditarianism was do be felt mostly because of the research on one disease: syphilis. Syphilis as a nosological label had been around for centuries, however, as of the 1870's; a growing number of researchers started to suggest it played a dominant causal role in many neurological conditions. Alfred Fournier (1832-1914), who was appointed Professor of Cutaneous and Syphilitic Diseases at the Paris Faculty in 1876, started a campaign to establish the etiological role of 'la vérole' in diseases of the nervous system in the late 1870's.

The first neurological disease Fournier claimed was a consequence of a protracted syphilis was tabes dorsalis. He first proposed the association in 1875, but because of the cool and critical reception to his claim, he waited until 1882 to publish his definitive work on the subject[31]. In his "Of locomotor ataxia of syphilitic origin", his claim was even more extreme than in 1875: "For the great majority of cases, locomotor ataxia constitutes a manifestation of syphilitic origin"[32]. Fournier was not the only researcher to allege the causal relationship between syphilis and tabes. Wilheim Heinrich Erb (1840-1921), in particular, started promoting the idea in the German speaking world at least as early as 1879. The issue was so important that by 1885 it had been discussed in medical meetings in France, Germany and England[33]. Though Charcot never shared this view,

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[31]FOURNIER: *De l'ataxie locomotrice d'origine syphilitique*, 1882.

[32]*Ibid.*, p.5.

[33]According to Belugou the topic was discussed at the Medical Congress of London, the Psychiatric Society of Berlin and the French 'Société Médico-Psychologique'[BELUGOU: Recherches sur les causes de l'ataxie locomotrice progressive, *Le Progrès Médical*, 1885, p.149]. Belugou also stated that Charcot, with Trousseau, Ballet and Landouzy, were in favour of an hereditary etiology [*Ibid.*, p.149].

the acceptance of this causal relationship increased in popularity[34]. It is not surprising to find that Pierre Marie, once referred to by a journalist as Charcot's pupil "who would possibly be the one to bring the greatest honour to his mentor", would completely support Fournier's etiological stand in 1894[35]. However, the issue was never completely resolved until the twentieth century, with the identification of the micro-organism by H. Noguchi in 1911, and the design of the Wassermann diagnostic test in 1906.

Progressively the group of conditions seen by Charcot and others as caused by heredity continued to be depleted. After tabes, general paresis of the insane was the next disease to be presented by some, such as Fournier, as a late manifestation of syphilis. The issue was judged important enough, that the 1889 Paris International Congress of Hygiene passed a resolution to have a questionnaire sent to all alienists to assess the general opinion of physicians on the syphilitic etiology of this condition[36]. Charcot, and in particular his acolyte V. Magnan, continued to defend their views, though with decreasing success. Despite the fact that, as for tabes, the issue of the syphilitic etiology of general paresis was not completely resolved until the twentieth century, the concept gained wide acceptance. This became clear during the 1894 debate on the issue at the 'Académie de Médecine'[37]. During this stormy session many supported Fournier's claim, while, not surprisingly, most of the opposition came from neurologists[38].

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[34]DEBOVE: *A. Fournier, éloge prononcé à l'Académie de médecine*, Paris, 1917, p.6.

[35]For the reference on Marie as the pontentially greatest student of Charcot, see: BIANCHON: *Nos grands médecins*, 1891, p.72. Marie stated clearly his opinion on the syphilitic etiology of tabes dorsalis in: CHARCOT, BOUCHARD, and BRISSAUD (edi.): *Traité de Medicine*, 1894, vol. VI, p.431.

[36]SOLLIER: Premier congrès national d'aliénation mentale..., *Le Progrès Médical*, 1890, p.113.

[37]LAFOURCAGE: Fournier, in DUMESNIL and BONNET-ROY (edi.): *Les Médecins célèbres*, 1947, p.243.

[38] *Ibid.*, p.243.

In this section, I have argued that the rise of germ theory sapped the confidence of a growing number of physicians in hereditarianism. In particular, I believe that the increasing popularity of syphilis as cause of many neurological and psychiatric diseases was capital in the downfall of this theory by eroding the pool of pathologies which had been seen as strictly hereditary. This no doubt was however only one of the factors responsible for this conceptual shift, and much more work is needed to shed light on this fascinating question. Though Charcot was not opposed to bacteriology as a whole, he always opposed its proclaimed predominant etiological role in neuropathology[39]. Surprisingly, at the very end of his life, he seemed to want to engage in some research in bacteriology. In 1892, Charcot wrote to the Dean of the Medical Faculty to request his approval of the appointment of his son as director of a small bacteriology laboratory set up at the Salpêtrière[40].

The important issue in the context of this chapter was to point out conceptual differences between Charcot and some of his leading students: Bouchard, Cornil, Straus, and Marie. In this group one should include one of Charcot's most famous foreign pupils: S. Freud (1856-1939). Charcot wrote a him a long letter in June 1892 to express his gratitude for Freud's recent translation of his Tuesday Lessons[41]. In this letter, after thanking Freud for his translation and his critical comments, Charcot wrote "vive la liberté", and added:

"Having stated this, I shall take the liberty myself to tell you that I am struck by how the theory of the Syphilitic Nature of tabes and progressive general paresis is presently wreaking havoc among

[39]For a very positive account by Charcot on the work of Pasteur, see his article published posthumously in *The Cosmopolitan*: CHARCOT: Pasteur, 1895, pp.271-278.
[40]Archives Nationales: box 6503, 17, p.17.
[41]CHARCOT: trans. by FREUD, *Poliklinische Vortäge*..., 1892, pp.480.

the best minds... it is unfortunate that no one has yet taken seriously the theory of arthritic and nervous heredity..." [42]

**Charcot's Decline**

The Faculty of Medicine in the early 1890's was to witness an open struggle between various professors for its hegemony. According to Le Gendre, this group of ambitious medical statesmen included: Charcot, Bouchard, Cornil, Debove, and Brouardel[43]. A more accurate statement would be that the 1890's was the scene of a competition between students of the 'maître de la Salpêtrière', Bouchard, Cornil, and Debove, to replace him as "Caesar of the Faculty"[44] . In this section we will analyze the reasons for Charcot's declining influence in the medical school. First we will review various factors which affected the general decline in Charcot's popularity in the medical world of the capital, then turn to the controversy which surrounded the 1892 'concours d'agrégation'. Relying on various sources we will unveil some of the behind the scenes intrigues which plagued this competition.

Numerous factors were responsible for the clear decline in popularity of Charcot in the late 1880's and early 1890's. This general drop in public favour was exemplified by the *Progrès Médical* 's 1889 review of Charcot's lectures at the Salpêtrière. The review was by far the least enthusiastic ever given Charcot in Bourneville's journal. The anonymous author felt that he had to emphasise that: "...the lectures at the Salpêtrière have lost nothing of their interest"[45]. The need to stress the continuing

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[42]Letter of Charcot to Freud, dated 30 June 1892 [ Letter collection of The Freud Museum, London].

[43]LE GENDRE: *Un médecin philosophe: Charles Bouchard...*, 1924, p.472.

[44]This expression is borrowed from: DAUDET: Le Professeur Charcot ou le césarisme de faculté, in *Les oeuvres dans les hommes*, 1922, p.292.

[45]Cours de clinique des maladies du système nerveux.... *Le Progrès Médical*, 1889, p. 495.

value of Charcot's teaching was no doubt in response to growing criticism as to its worth. The reasons for this fall in repute can be broken down into five components: first, ideological; second, the widespread criticism of his work on hysteria and hypnotism; third, antagonisms for his protection of Bourneville's *Progrès*; fourth, the death and retirement of many of his traditional supporters; and lastly, school rivalries. Though we will review each somewhat independently, one must obviously remember that all were simultaneously at play during this period.

Ideologically, Charcot's insistence on the preeminence of the anatomo-clinical method over experimental physiology and his increasingly old-fashioned belief in morbid heredity, therefore scepticism toward bacteriological etiology, I would argue, were responsible for some of his decline in medical authority. His somewhat extreme position on the superiority of clinical and pathological over physiological data, obviously antagonized both physiologists and physicians such as G. Sée, who strongly supported the opposite view. It was therefore not surprising that Sée criticised Charcot publicly in 1892, and that the physiologist Brown-Séquard also opposed his old friend Charcot in the early 1890's. Furthermore, as we have seen, Charles Richet, the young Professor of Physiology, even after having worked with Charcot in the 1870's, disagreed publicly in 1887 on the latter's epistemological stand.

Charcot's belief in hereditarianism contrasted with the growing number of his leading students' endorsement of germ theory. In fact, by 1890 all his students who had become Faculty professors, except for Ball, had become strong supporters of the causal role of micro-organisms in diseases[46]. This almost generational ideological difference between the mentor and some of his students was no doubt responsible for their

[46]This group included: Bouchard, Cornil, Debove, Straus, and Hayem.

disinclination to back the students who shared the chief's views. Furthermore, it made it impossible for them not to air some criticisms in private. In other words, Charcot's ideas, like himself, were aging. When the time came to defend either Charcot's younger pupils in various competitions, or the master's opinions, his older pupils increasingly had reservations. The selection of pupils to the various levels of the Faculty hierarchy being the best means of securing lip service to one's ideas, the 1892 'concours d'agrégation' became the scene of open rivalries. Charcot's ability to ensure the success of his students, until the late 1880's, secured a leading place to his ideas in the official teaching of the Faculty. Therefore, his failure to do so in 1892 indicated that his political influence was diminishing, but also that the popularity of his ideas and teaching were on the decline.

From the mid 1870's, Charcot, convinced of the robustness of his method and his clinical acumen, started to investigate what he labelled himself one of the "sphinxes that defy the most penetrating pathological anatomy", a condition which many physicians preferred to classify in the "category of the unknowable": hysteria[47]. The historical literature on Charcot's work on hysteria and its counterpart, hypnotism, is truly extensive[48]. The twentieth century interest in Charcot's work on these subjects probably stemmed from Freud's alleged intellectual debt to his Parisian mentor's teaching on the subject[49]. Charcot published his first work on the subject in

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[47]CHARCOT: Leçon d'ouverture, in CHARCOT: *Oeuvres complètes...*, 1890, vol. III, p.15. In the same lecture, he stated that it was because of the stength of his method that he could engage in such research: "Nous aborderons donc, avec prudence sans doute, mais avec confiance, l'étude de ces affections redoutées, pénétrés que nous sommes de la sûreté des méthodes d'observation qui sont entre nos mains" [*Ibid.*, p. 22].

[48]Classical references, including: VEITH: *Hysteria: The History of a Disease*, 1965; TRILLAT: *Histoire de l'hystérie*, 1986, OWEN: *Hysteria, Hypnosis, and Healing...*, 1971, and ELLENBERGER: *The Discovery of the Unconscious...*, 1970. A more recent and stimulating political and sociological analysis can be found in: GOLDSTEIN: *Console and Classify...*,1987.

[49]FREUD: An Autobiographical Study, in STRACHEY (ed.): *The Standard Edition...*, vol. XX, pp.12-4 and 24.

1871[50]. Over the years, his interest in hysteria grew, and the output of publications from his School followed proportionately. With it came a public craze and fascination for the condition. Charcot was perceived by both the professional and lay public as the expert on what was in 1882 considered by a journalist as "the most exciting issue of the day"[51]. However, with it followed much criticism and envy. One of his own students, probably Bouchard, after seeing a poster publicizing an hypnosis session "in accordance to the experiments of Charcot at the Salêtrière", was reported to have said: "There is chastisement!"[52]. Charcot's work on hysteria and hypnotism, as we have already noted, had been used in 1883 by some as an argument against his election to the 'Académie des Sciences'. Charcot's involvement in a field of research, that some could call unscientific, no doubt diminished his scientific credibility, while at the same time increasing his public visibility. In other words, physicians who envied his public fame could denigrate it because it was to a large extent due to his 'neo-mesmeric' work (see Caricature 3)[53] . At the same time, his work on hysteria, from the late eighties to the early 1890's, became increasingly often the target of criticism by Bernheim and the Nancy 'suggestion school'. The school differences became public in 1890 with the then famous "Bompard-Byraud" trial[54]. During this trial, the counsel of one of the assasins, based on Bernheim's suggestion theory, tried to claim that his client was not responsible for the killing of a businessman on the grounds that she had been under the hypnotic control of her lover.

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[50]Though Signoret states that Charcot started studying hysteria in 1868 [SIGNORET: La création de la chaire de Charcot, *La Revue Neurologique*, 1982, p.887], his first article on the subject was only published in 1871: CHARCOT: De la contracture permente des hystériques, *La Gazettes des Hôpitaux*, 1871, pp.560-2 and 557-8.

[51]Quotation taken from: WEBER: *France, Fin de Siècle*, 1986, p.21. The original sentence was:"La question palpitante du jour" [GIFFARD, P.: *Les grands bazars*, Paris, 1882, p.157].

[52]GUILLAIN: *J.-M. Charcot...*, 1955, p.62.

[53]HARRINGTON: Hysteria, Hypnosis, and the Lure of the Invisible: the Rise of Neo-mesmerism in Fin-de-siècle French Psychiatry, in BYNUM, PORTER and SHEPHERD (eds.): *The Anatomy of Madness...*, vol. III, 1988.

[54]HARRIS: Murder under hypnosis..., in BYNUM et al: *The anatomy of madness...*, 1985, pp. 197-241.

LE PROFESSEUR CHARCOT

Caricature 3: Le Professeur Charcot, *Les Hommes d'Aujourd'hui*, vol. 7, 343.

Though Charcot's School claimed that the judgement was a complete victory for their ideas, the accused having been charged with the murder, it publicized the fact that Charcot's work was seriously criticized[55]. Therefore, by the late 1880's and early 1890's, one of Charcot's major claims to contemporary fame, was seen by both the medical and lay public as under attack.

Surely one of the great sources of antagonism at the Faculty and in the Paris medical world against Charcot and his School came from the frequent and often very personalized polemical campaign, Bourneville and his journal engaged in. From its creation, the *Progrès* aggressively promoted reforms. Three reform campaigns were to generate an important opposition to its editorial policies. We have already reviewed Bourneville's campaign for the laicization of hospitals in chapter 4. This reform movement was successful, however it did split the medical establishment into two opposing camps. Furthermore, because of the politically charged nature of the issue, it ensured that both Bourneville and his mentor would be hated by the so-called 'clericals' whose political weight during this period, though decreasing, never became negligible. The 1883 heated debate over the creation of obstetrical services at the 'Assistance Publique', the creation of new obstetrical chairs at the Faculty, and furthermore the establishment of a new surgical aggregation competition to ensure a better selection of obstetricians, was to ensure Bourneville's dislike by leading surgeons[56]. To add pain to injury, Bourneville as a deputy, engaged in a successful campaign to force Faculty teachers to retire before the age of 70. He went as far as to name some of the professors who should be forced into retirement. These included leading medical men, such as: G. Sée, Ball,

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[55]For the School of the Salpêtrière's opinion on the trial, see: GILLES DE LA TOURETTE: L'Epilogue d'un procès célèbre, *Le Progrès Médical*, 1891, pp. 92-4.

[56]Les barbiers et les accoucheurs, *Le Progrès Médical*, 1883, p.287; Le XIX[e] siècle et le concours des accoucheurs, *Le Progrès Médical*, 1883, p.398.

Brown-Séquard and others[57]. This campaign for the 'limite d'âge' was no doubt a source of much anger from aging medical statesmen who, because of the Ministerial Decree of 12 March 1885, were forced to stepdown from their chairs. However, rivalries caused by these campaigns, were probably of lesser importance still than the bitterness created by the yearly critical reviews the *Progrès* published on the teaching of all professors in Paris.

The *Progrès*, from its creation in 1873, printed critical, and often vitriolic reviews of the first lecture of every professor and agrégé. Teachers of the various scientific institutions of the capital were the subject of a more or less positive appraisal of their course content and professorial abilities. A study of these reviews shows that the *Progrès* would intentionally segregate teachers according to their association with Charcot, and the perceived 'progressiveness' of their teaching[58]. They encouraged students to attend some of the lectures and discouraged them from going to others[59]. The *Progrès* was the only medical journal to engage in such propangada. Of the numerous teachers Bourneville and his paper attacked, Benjamin Ball was to suffer the greatest blunt. In its 1891 review of his lecture, the *Progrès* went as far as to ask for his resignation[60]. The *Progrès* criticisms did not go unoticed[61]. However,

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[57]His first article on the subject was: BOURNEVILLE: La limite d'âge pour les professeurs des facultés, *Le Progrès Médical*, 1884, p.1034-35. On 15 December 1884, he addressed the issue in the National Assembly [Chambre des députés..., *Le Progrès Médical*, 1885, p.14]. For his approval of the forced retirement of three professors of the Faculty, Gavarret, Hardy and Sappey, see: BOURNEVILLE: Limite d'âge des professeurs..., *Le Progrès Médical*, 1886, p.626. For his request to see Brown-Séquard forced into retirement, see: BOURNEVILLE: Limite d'âge..., *Le Progrès Médical*, 1890, p.68. For his request to see Ball and G. Sée retire, see: BOURNEVILLE: A la Faculté de Médecine..., *Le Progrès Médical*, 1892, p.279.

[58]For examples of positive reviews, see: Clinique médicale de l'Hôtel-Dieu: M. Béhier, *Le Progrès Médical*, 1873, p.274, and Asile Sainte-Anne: ouverture du cours de M. Magnan, *Le Progrès Médical*, 1880, p.65.

[59]For examples of negative reviews, see: Ouverture du cours de M. Brown-Séquard..., *Le Progrès Médical*, 1878, pp.940-1, and Cours de clinique de pathologie mentale: M. le professeur Ball, *Le Progrès Médical*, 1891, p.383.

[60] *Ibid.*, p.383.

[61]Another very negative review was: Cours de médecine opératoire et appareils, M. le professeur Tillaux, *Le Progrès Médical*, 1891, pp.384-5.

though similar bad reviews had been published over the years, only in 1891 did Bourneville feel he had to defend his journal's policy in two editorials[62] . This I believe, is a clear illustration that the medical world of the capital, perceiving that Charcot's star was declining, no longer feared to attack what was seen as "L'officiel de Charcot"[63].

The professorial body of the Paris Faculty was in constant change due to deaths and retirements. 16 out of the 34 teachers who taught in 1880 had either retired or died by 1890. This implied that each professor's relative influence within the Faculty changed as new professors were appointed. Teachers were then all chosen from the pool of 'agrégés'. The ability to ensure ones students' success at this last official competition was therefore determinant to the strengthening of a mentor's position in the Faculty. As we have seen, many of Charcot's students where selected in these concours during the 1870's and 1880's. Therefore, Charcot by 1890, more than any other professor of the Faculty, had been joined at the highest echelon of the Faculty by many of his favourite students: Bouchard, Debove, Cornil, Hayem, and Straus. However, many of his old friends of the 'Société de Biologie', who no doubt had played some role in the advancement of his students, either retired or died during the 1880's. In fact, of the 12 members of the Society who held chairs in 1880, only 6 including Charcot were still professors by 1890[64]. Of all the ones who died during the decade, certainly the one who had supported Charcot the most over the years was Vulpian. His death in 1887 could be seen both as marking Charcot's highest level of dominance over the Faculty, but also as heralding his decline. The other members of the Society, whom Charcot had relied

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[62]BOURNEVILLE: Le numéro des étudiants et les ouvertures des cours, *Le Progrès Médical*, 1891, pp.438-9, and Encore les ouvertures des cours, *Le Progrès Médical*, 1891, p.467.

[63]*Op. cit.* 44, p. 11.

[64]Of the members of the 'Société de Biologie' who were professors in 1880, only Charcot, Bouchard, Regnauld, Hayem, Laboulbène, and Verneuil were still professors in 1890.

upon over the years and who died during this period were: Parrot, Robin and Broca. During the 1880's, Charcot not only lost professional allies, but he also lost political allies.

The issue of his relationship with many republican politicians has been previously reviewed, however during the 1880's three of the most influential died: Gambetta in 1882, Paul Bert and Henri Liouville, Charcot's step-daughter's first husband, in 1887. Though by 1890 Bourneville was a deputy, Cornil a senator and Charcot's step daughter had remarried with another leading republican Waldeck-Rousseau (1846-1904), his overall political backing had substantially decreased[65]. As we will see, his hegemony was so great that in fact in order to replace him as the dominant figure of the Faculty, a revolt had to be led by one of his own students.

School rivalries have plagued the history of the Paris Medical Faculty. The reasons students formed schools around a chief are, as Le Gendre pointed out, hard to establish[66]. Why does an intern who has trained in four different services during decide to join the following of one particular teacher? It is clear that the determining factor was the personality of the head of the school. We reviewed in detail what was responsible for Charcot's abilities to attract students as the head of the so-called 'Ecole de la Salpêtrière'. Charcot learned from his own mentor Rayer most of the skills required to achieve this enviable status. However, what he had learned from Rayer, he passed on to his pupils. Charles Bouchard appears to have been the most dedicated and successful of Charcot's students in creating his own following. The growing antagonism between the latter's School and Charcot's will be discussed when we review the 1892

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[65]For details on Charcot's children, see: *Op. cit.* 32, p.17.
[66] *Op. cit.* 43, p.284.

aggregation competition. We shall first examine the quarrel with two other schools.

The antagonism between Ball and Charcot's school, following the unsuccessful establishment of the Chair of Mental Diseases at the Salpêtrière Hospice in 1877, was well known at the time. Six months after the creation of Charcot's *Archives de Neurologie* in 1880, Ball founded his own publication. In the introduction of the first issue of *L'Encéphale*, Ball stated that the various contributors would be "...those who have remained independent from a school of thought", by "...avoiding the often deserved blame of adding little more to the chorus of scientific voices than the monotonous ditty of an unwavering mind"[67]. *L'Encéphale* was clearly referring to Charcot's publications. Bourneville stated in 1891: "During the past few years... since M. Ball tried to establish his service at the Salpêtrière...he has always taken great care never to publicize the works we have published"[68]. The significance of this school rivalry in the decline in popularity of Charcot was probably small, though it certainly was responsible for some division between psychiatrists who followed Magnan and Bourneville, as opposed to Ball.

Another possibly more significant school antagonism occurred in the 1890's and became even more important in the following decades, it originated between Pierre Marie and Vulpian's favorite disciple Jules Dejerine. Dejerine as we have already seen while reviewing the 1886 'concours', was seen by Charcot as an opponent to his School. I believe that his close association with the memory of Vulpian, his title of agrégé, and his specialization in neuropathology made him, in the eyes of some of Charcot's students, a potentially serious opposition and, more importantly, a probable front-runner in any competition to replace the chief. I believe it

[67]BALL: Au lecteur, *L'Encéphale*, 1881; pp. 2-3.
[68]BOURNEVILLE: Le numéro des étudiants..., *Le Progrès Médical*, 1891, p.438.

was because of an awareness of the potential challenge which Dejerine could present in the future, and the general feeling of being under siege after the polemic surrounding the 1892 concours, that Pierre Marie, one of Charcot's leading 'second generation' pupils, attacked Vulpian's student publicly. On 24 December 1892, Marie published a two-page article in the *Progrès* [69]. The paper was an outright personal attack on Dejerine who had published an article under the same title two weeks earlier in *La Semaine Médicale* [70]. Marie stated in very abrasive terms that Dejerine claimed priority for an idea published many years earlier by the German scientist Leyden. Furthermore, Marie wrote that Dejerine was impudent to suggest that he agreed with him. In the manuscript of Marie's article, which has been preserved by his family, Marie accused Dejerine of being an egotistical man, a medical and political reactionary, and that any idea that Dejerine came up with would be of no interest to him[71] . Dejerine was swift to react. Two witnesses were sent to see Marie. Marie was asked to retract his statements because they shed some doubts on Dejerine's scientific integrity. If Marie refused, he had to arrange a time for a duel. The *Progrès* published these rather chivalrous transactions. Marie, while retracting nothing of what he had written, simply stated that Dejerine's scientific reputation was never in doubt[72]. The importance of this heated debate was twofold for the history of neurology in Paris. First, after Charcot's death, the increased prominence of the two rivals was to ensure a very profound division among the neurological community in the capital, a division which still exists. Second, it illustrated the insecure position many of Charcot's younger protégés found themselves in the early 1890's. Not only was Charcot's public image fading because of his work on hysteria and the role he played as medical consultant during the Panama Canal scandal

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[69]MARIE: Du rôle joué par les lésions..., *Le Progrès Médical*, 1892, pp.513-4.
[70]DEJERINE: Du rôle joué par les lésions..., *La Semaine Médicale*, 1892, p.502.
[71]The manuscript was made available to me by Pierre Marie's descendant: Dr. M. Pierre-Marie-Granier.
[72]DEJERINE: Du rôle joué par les lésions..., *Le Progrès Médical*, 1893, pp.1-2.

in 1892, but also the 1892 medical 'concours' demonstrated that the 'maître de la Salpêtrière' had lost his hegemony over the Faculty[73].

The purpose of reviewing in detail the history of the 1892 aggregation competition of the Faculty of Paris is threefold. First it showed clearly the nature of school rivalries at the Faculty and their political counterpart. Second, it clearly marked the decline of Charcot's influence over the Faculty. Lastly, it showed in what state of disarray Charcot's school found itself a few months before the death of its chief. Following a review of the history of the heated polemic, we will turn to a short analysis.

In the fall of 1891, Charles Bouchard, who was then the Medical Faculty's representative on the 'Conseil Supérieur de l'Instruction Publique', was chosen by the Minister of Education , Léon Bourgeois , to preside the 1892 medical aggregation 'concours'. As was the practice then, the president of the jury submitted a list of possible judges from which the Minister selected a jury of seven, and four substitutes. The final list was made public in early November 1891[74]. The selection was unusual because professors of the Paris Faculty did not hold an absolute majority. The competition was officially opened on 4 January 1892. Candidates from Paris numbered 15, including two of Charcot's pupils: J. F. F. Babinski (1857-1932), and G. Gilles de la Tourette (1857-1909)[75]. Germain Sée, a

[73]In 1892, Charcot and the Dean Brouardel were sent to examine Cornelius Herz, a French banker in exile in England following the scandal over the construction of the Panama Canal. The two men agreed with their English colleagues, that Herz was too sick to cross the Channel to be prosecuted in Paris. Public opinion wanted his extradition, and Charcot was spared no insults [DEBOVE: J.-M. Charcot, *Le Bulletin Médical*,1900, p.13].

[74]The official jury included: G. Sée (Paris), Potain (Paris), Bouchard (Paris), Debove (Paris), Dupuy (Bordeaux), Mairet (Montpellier), Tripier (Lyon), Spillman (Nancy). The substitute judges were all from Paris: Fournier, Straus, Hanot, and Quinguaud. [Concours d'agrégation, *Le Progrès Médical*, 1891, p.433]

[75]The other candidates were (the name of their mentor is in parenthesis, and a (*) follows their name if they were successful): Ch. Achard (Debove), A. Brault (Cornil), Charrin* (Bouchard), Dublocq, Gaucher* (Bouchard), Lesage, Marfan* (The Minister of Interior Constant!), Ménétrier*, H. Richardière (Brouardel), Roger* (Bouchard), Thivièrge, Thoinot, Widal (Bouchard), R. Würtz (Straus). [Le concours d'agrégation en médecine..., *Le Progrès Médical*, 1892, p.26]

close friend of Bouchard's, was ill on the day of the opening. Bouchard, instead of replacing him by one of the substitute judges, decided, supposedly with the approval of the jury, to postpone the first examination until the following day. Sée did show up the ensuing few days, however, dropped out of the jury three days later because of poor health. The 'concours' having been started, he could not be replaced. The *Progrès* immediately pointed out these irregularities[76].

On March 12, results were made public. Successful candidates for Paris were: Charrin, Gaucher, Roger, Marfan, Ménétrier. The first three were Bouchard's pupils. Bourneville was quick to retort: "It is not exactly the results that the medical public expected for the Medical Faculty of Paris"[77]. In the same article, he suggested that the competition had been vitiated not only by the usual medical politics, but also by political interference, infringement of rules, and more importantly by the selection of the president himself. This was the beginning of a vitriolic campaign during which Bouchard got the brunt of the attacks. On March 23, the Minister Bourgeois was presented with a petition of protest by five of the unsuccessful candidates: Achard, Brault, Babinski, Richardière, and Würtz[78]. The document, which was presented to the Ministry by Cornil's, brother-in-law the barrister Lesage, requested the cancellation of the competition. However, though their demand was based on the bending of rules by the president, it also included more personal accusations. Bouchard was accused of having chosen G. Sée as judge because of their friendship, and therefore having illegally postponed the first meeting in order not to have to select a substitute who might not support his students. Furthermore, by selecting four of the eight judges from provincial faculties, Bouchard, as member of the 'Conseil Supérieure de l'Instruction Publique',

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[76]Les incidents du concours..., *Le Progrès Médical*, 1892, p.37.
[77]BOURNEVILLE: Le concours d'agrégation..., *Le Progrès Médical*, 1892, pp.223.
[78]BOURNEVILLE: Le concours d'agrégation..., *Le Progrès Médical*, 1892, pp.239-40.

ensured that he could influence their votes. Therefore, the petitioners concluded that the entire process had been intentionally corrupted by Bouchard to secure the success of his protégés[79].

The accusations of political interference in the backing of Marfan's candidacy and of a school war at the Faculty were enough to attract the attention of the political press. Bouchard, Charcot, Cornil, Sée and others were interviewed by leading newspapers[80]. The most serious attack against Bouchard came from *La Justice*, the newspaper belonging to Bourneville's old friend and fellow left wing politician, G. Clemenceau. It included a letter from Sée to Babinski. Sée wrote that Babinski had a chance of being selected only if he convinced Charcot to back his candidacy to the 'Académie des Sciences'. Sée stated that if not, Babinski would be sacrificed because the 'concours' was an outright attack against Charcot and his School as a whole[81]. The political and medical press became polarized on the issue. However, it soon became clear that the basic issue was one of school warfare between Charcot, Debove and Cornil on one side and, the renegade Bouchard and his acolyte Sée, on the other. However, neither contemporary publications nor the two historical accounts of the debate provide much insight as to the degree of behind-the-scenes intrigue which took place to ensure the Minister's support of Bouchard[82]. Fortunately, the printed correspondence between Brown-Séquard and his assistant d'Arsonval allows one to assess its magnitude[83].

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[79]BOURNEVILLE: Le concours d'agrégation..., *Le Progrès Médical*, 1892, pp.248-9.

[80]Some of the interviews by G. Stiegler, a journalits of *L'Echo de Paris*, were reprinted in the *Progrès* [*Ibid.*, pp.248-249]. Others can be found in: La tempête de la Faculté de médecine..., *Le Matin*,1892, p.1.

[81]DEGOUY: Un concours d'agrégation, *La Justice*, 1892, p.1.

[82]Guillain, who was a student of Pierre Marie's, presents Bouchard as a younger, ambitious and somewhat irreverent pupil of Charcot [*Op. cit.* 32, pp.60-83]. On the other hand, Paul Le Gendre, Bouchard's biographer and student, tried as best he could to present his chief in a positive light [*Op. cit.* 43, pp.429-35].

[83]DELHOUME: *De Claude Bernard à d'Arsonval*, 1939.

Charcot and Brown-Séquard were both protégés of Rayer. They moved apart after the debate on localization in 1875. Their parting was complete by 1888, at which time Charcot left *Les Archives de Physiologie Normale et Pathologique*, which they had founded with Vulpian in 1868, to start the *Les Archives de Médecine Expérimentale et d'Anatomie Pathologique*. On the other hand, Brown-Séquard remained a very close friend and ally of Bouchard's[84].

On 17 February 1892, the physiologist wrote to his assistant that he would seek "vengeance" against Charcot and Verneuil for withdrawing their support to one of his protégés in a Faculty competition[85]. The scandal surrounding the 1892 'concours' provided just that opportunity. The day following the attack against Bouchard in *La Justice*, Brown-Séquard wrote to his assistant: "I am quite annoyed by the Charcot-Bouchard affair... One should be worried that M. Bourgeois will be won over by Clemenceau"[86]. Following this letter d'Arsonval met various personalities who could back Bouchard. He twice visited Claude Bernard's confidante, Mme. Raffalovich, who promised him to use all her connections to influence the Minister and Clemenceau. With the support of Reinach, a leading republican politician and journalist, d'Arsonval was ready to start a press campaign to back Bouchard in various newspapers if necessary: *Le Siècle*, *Le Voltaire*, and *La République*. Lastly, if Cornil spoke on the matter in the Senate, he was to "throw in his way doctor Donnet, physician and Senator for the 'Haute-Vienne'"[87]. The campaign was successful, and Mme. Raffalovich informed d'Arsonval that the Minister had rejected the petition, before the decision was actually made public[88]. Brown-Séquard, in a susequent letter, thanked his assistant for his hard work on behalf of Bouchard who was grateful for

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[84] *Op. cit.* 43, pp.490-4.
[85] *Op. cit.* 82, p.407.
[86] *Ibid.*, p.439.
[87] *Ibid.*, p.440.
[88] *Ibid.*, p.441.

the important role one of d'Arsonval's friends played in convincing the Minister[89]. To this letter, d'Arsonval replied:

> "I was pleased to learn the happy ending of the Charcot-Bouchard affair. Our friend is therefore relieved of this worry, and consequently his prestige is increased, though certainly to the embarrassment of his colleagues. Hence the reign of Charcot at the Faculty is over"[90].

Charcot's reign was truly over. The professor, whom Léon Daudet called the "...undisputed and omnipotent master..." of the Faculty in the 1880's, was beaten and relegated to a secondary role[91]. The man whose consent was required " for the nomination of every professor, agrégé, hospital physician, or gold medalist..." had been overthrown[92]. The 1892 competition, which Bourneville labelled the "depressing concours Fin-de-Siècle", was the ultimate symbol of Charcot's decline[93]. However, the final outcome of the 'concours' was to come only after Charcot's death, when the appeal to the Council of State was rejected in November 1894, thus exonerating the jury and its president[94].

Many factors were responsible for the timing of this apparent revolt against Charcot and the fact that it was led by one of his favourite pupils. We have already mentioned the public backlash of both the 'Bompard-Eyraud' trial and Charcot's consultation in the Panama Canal scandal, however, I believe a more important factor was at play[95]. On New Year's

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[89] *Ibid.*, p.442.

[90] *Ibid.*, p.443.

[91] DAUDET: *Les oeuvres dans les hommes.* Paris. 1922. p.197.

[92] *Ibid.*, p.197.

[93] BOURNEVILLE: A propos des concours d'agrégation. *Le Progrès Médical.* 1892. p.458.

[94] Op. cit. 43. p.435.

[95] Charcot's name was also mentioned during the Panama Canal scandal, not only because of his medical consultation in England, but because his son-in-law Waldeck-Rousseau was prosecuted on charges of having accepted bribes as editor of a republican paper.

Eve 1891, while being the host to a vast gathering of medical, political, literary, and artistic friends in his luxurious 'hôtel particulier' of the boulevard Saint-Germain, Charcot suffered a severe episode of angina pectoris. Potain, the famous medical consultant, who lived across the street, was summoned to attend Charcot. He thought the prognosis grim, two to two and a half years he privately confided to his pupil, the young Léon Daudet[96]. The news of Charcot's illness spread, its severity forcing him to interrupt or cancel some of his lectures[97]. Brown-Séquard wrote to his assistant following a visit to Charcot in May 1892: "In my opinion, Charcot is very seriously ill"[98]. In fact, one finds numerous letters of Charcot's wife to the Faculty's secretary requesting that one of her husband's lectures be postponed because of illness[99]. I would argue that the common-place knowledge of Charcot's illness and its poor prognosis was a prerequisite for the movement to replace him as the leading physician of the Faculty. This is apparent from the fact that though Bouchard became the leading contender, it appears that the parting was still not consummated in August 1891 when he signed with his mentor the introduction to their textbook *Traité de médecine* [100]. Therefore, the early 1890's were for Charcot and his School a time of rapid decline and demise, a process that was not to stop with Charcot's death.

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[96] *Op. cit.* 95, p.236.

[97] DAUDET: *Devant la douleur...*, 1915, p.99.

[98] *Op. cit.* 83, p.442.

[99] Archives Nationales: Personnel de la Faculté, AJ[16] 6503 (Charcot).

[100] CHARCOT, BOUCHARD, and BRISSAUD (eds.): *Traité de médecine*, Paris, 1891, pp.VII-VIII.

**Charcot's Death and the Aftermath**

By the early 1890's, Charcot's physiognomy fitted both his professional status and the fact that "he held the Faculty bent under his yoke"[101]. Léon Daudet described him in these terms:

> "He had in his sixties, a beautiful though severe face, half Dantesque, half Napoleonic. His hair was long and sleek, uncovering meditative temples. His gaze, with its steady stare, would pass from the flames of observation to the light of reasoning, while being interspersed with flashes of suspicion. He had everything of an 'Othello de bibliothèque'."[102]

His impressive "encyclopaedic mask" contrasted with his short stature and extreme obesity[103]. The "Caesar of the Faculty" disliked all forms of exercise and delighted in fine eating and tobacco[104]. His cardio-vascular illness came to most as no surprise. During the last few years of his life, his recurrent angina forced him to cancel or interrupt some of his lectures[105]. To Charcot's great distress, an anonymous writer would remind him periodically of his impending death[106]. For health reasons, and encouraged by his wife, he left in early August 1893 for a short holiday in the Morvan region with two of his pupils: Debove and Straus. The night prior to his return to Paris, he went to bed before the others. He wrote a letter to his wife stating that he had not felt so well for a long time. In the middle of the night, Debove and Straus were awaken by the inkeeper who urged them to attend Charcot in his room. They found Charcot sitting in a chair, extremely short of breath. His face was pallid and covered with sweat. A few hours later, Charcot entered history[107].

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101 *Op. cit.* 97, p.98.
102 *Op. cit.* 91, p.205.
103 *Ibid.*, p.206.
104 *Ibid.*, p.197 and *Op. cit.* 73, p.15.
105 Les Archives Nationale: Personnel de la Faculté, AJ[16] 6503 (Charcot).
106 BOURNEVILLE: J.-M. Charcot, *Le Progrès Médical*, 1893, p.202.
107 *Op. cit.* 52, p.73.

On 17 August, the day following his death, political newspaper headlines read: " Mort du Docteur Charcot"[108]. While the Rebublican press mourned his loss, the conservative *Le Figaro* claimed that Charcot had been lucky to have lived in the tolerant nineteenth century, because had he lived a few centuries earlier, he would have burned at the stake[109]. Bourneville, on August 19· informed his readers of the death of his mentor writting that: "...France lost one of the men ... who contributed the most to its reputation in the world"[110]. The funeral, held on August 19 was attended by a huge crowd of medical, administrative and political dignitaries. In the chapel of the Salpêtrière, they were joined by hospital staff and many patients for a ten o'clock service. The chapel walls were covered with black funeral hangings monogrammed with a "C". Ironically, Charcot who had been a staunch anticlerical, had a religious funeral. The impressive burial procession went from the the old Hospice under torrential rain to the Montmartre Cemetery. As Charcot had requested, there were no funeral orations[111]. The man whose star had shone over the Paris medical world for many decades had vanished, and with his eclipse his school found itself in darkness and disarray.

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[108]For examples see: Mort du Docteur Charcot, *La République Française*, 17 Aug., 1893, p.1; Deux morts: le Professeur Charcot et le Docteur Blanc, *Le Figaro*, 17 Aug. 1893, pp.1-2; and Nécrologie: Le Professeur Charcot, *Le Temps*, 18 Aug., 1893, p.3.

[109]"Il fut heureux pourtant pour lui qu'il naquit et vécut en un siècle de tolérance et de libre examen. Deux cents ans plutôt, il aurait eu, comme Urbain Grandier, maille à partir avec le Saint-Office, et c'est en place de Grève, à travers la flamme pourpre d'un bon bûcher de bois sec, que les *escholiers* de la montagne Sainte-Geneviève furent venus saluer *in extremis* son masque glabre d'empereur romain!" [*Ibid.*, p.2].

[110]BOURNEVILLE: Mort de M. J.-M. Charcot, *Le Progrès Médical*, 1893, p.122.

[111]DAURIAC: Obsèques de M. le professeur Charcot, *Le Progrès Médical*, 1893, pp.208-10.

All of the obituaries published by his students over the next ten years had a clear apologetic and defensive overtone[112]. They all defended the value of his work on hypnotism and hysteria, his supposed therapeutic nihilism, his protection of his students, his stand on the preeminence of clinical medicine over physiology, etc... This defensiveness was justified by the aftermath of their chief's death.

Bourneville's journal was to suffer a great deal from the loss of its patron. Loeper, in his history of the *Progrès*, states that following the death of Charcot, Bourneville in an effort to save his publication, changed the members of the editorial staff. That this was an effort to find new allies was made clear by the fact that Jules Dejerine, who had not collaborated with the *Progrès* since 1883, was made one of its editors[113]. On the other hand, Dejerine's rival, Pierre Marie, who had published eighteen articles in the previous decade in "l'officiel de Charcot" never published again in the journal after 1893. According to Loeper, the reason for the *Progrès* decreased strength and popularity was that:"With Charcot, Bourneville had lost his strongest backing, and a good deal of his power"[114]. Though Bourneville continued to engage in polemics, he started loosing his collaborators to other new medical publications. By the end of the 1890's, the *Progrès* was in the hands of another editorial board on which Bourneville had very little control. In 1908, one year before his death, he left the journal all together. The journal which had served Charcot's ambitions and ideas since 1873, lost its prominent role in the medical world of the capital with Charcot's death. In other words, the *Progrès* and its editor were some of the casualties of the immediate aftermath of the death of the 'maître de la Salpêtrière'.

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[112] *Op. cit.* 106, pp.177-202; JOFFROY: Jean-Martin Charcot, *Archives de Médecine Experimentale...*, 1894, pp.577-606; BRISSAUD: Hommage à M. Charcot, *Le Progrès Médical*, 1893, p.469; and GILLES DE LA TOURETTE: Jean-Martin Charcot, *La Nouvelle Iconographie...*, 1893, pp.241-250.

[113] LOEPER: Histoire du journal, *Le Progrès Médical*, 1922, p.586.

[114] *Ibid.*, p.587.

Another casualty was Charcot's pupil Edouard Brissaud (1852-1909). Brissaud, who had officially chosen to become the 'agrégé' specialized in the diseases of the nervous system in 1888, was asked to replace temporarily his mentor during the 1893-94 academic year[115]. This gave the Professorial Assembly some time to appoint the new professor. This was truly a difficult decision for an Assembly split along school lines, with a seemingly prevalent will to decrease the importance of Charcot's School at the Faculty. Bourneville did not hide his disgust at the temporary appointment of Brissaud, and the rumor that he would not be chosen to replace Charcot: "What does this delay hide? What combinations are sought in secret? If one does not want the men who seem designated, to whom in fact commitments had been made, why not tell them now, and clearly?"[116]

Though Brissaud should have been the first on the list, his known reverence to Charcot was probably too great in the opinion of Bouchard and others. Did Brissaud not state himself, in his first lecture at the Salpêtrière: "Nothing of what he (Charcot) has said or written has been disputed, because nothing is disputable"[117]. This devotion to his mentor cost him the chair he had worked for many years. In May 1894, another ex-intern of Charcot's was made professor: Fulgence Raymond (1844-1910). Though Raymond had close connections with Charcot and his School, having been an intern at the Salpêtrière in 1875, he was not so closely associated with him as Brissaud, and was seen more as Vulpian's disciple. He had been an intern of Vupian's in 1873 and 1877 and they had published a book together[118]. Raymond, however, suggested in his opening

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[115]Spécialisation des agrégés. *Le Progrès Médical*, 1888, p.427.

[116]BOURNEVILLE: Réformes de l'enseignement de la médecine..., *Le Progrès Médical*, 1893, p.314.

[117]BRISSAUD: *Op. cit.* 112, p.469.

[118]VULPIAN, RAYMOND: *Clinique médicale de l'hôpital de la Charité*. Paris, 1879.

lecture that Charcot had expressed his wish to see him appointed at the Salpêtrière, and possibly later replace him in his chair[119]. Raymond's connection with Vulpian, I believe, is also evident in the selection of Jules Dejerine as the second physician of the Salpêtrière in 1895, Dejerine having had no direct links with Charcot, but also a student of Vulpian's. It became clear to all that Raymond wanted to be neutral, and not get involved in the political quarrels of the Faculty[120].

Charcot's faithful students accepted Raymond's selection, but in 1899 they founded the 'Société de Neurologie'[121]. Using this society, Charcot's pupils secured a form of control over French neurology, aside from Raymond's lukewarm reverence to Charcot and his replacement as Professor in 1910 by Jules Dejerine. The Chair of the Salpêtrière was to wait until 1917 to fall into the hands of Pierre Marie, a devoted follower of Charcot. The take over was explosive, Marie giving only two weeks to Dejerine's students and wife to leave the Salpêtrière[122]. Since then, Charcot's School, or more accurately the Charcot tradition has kept control over the Salpêtrière and the 'Société de Neurologie', while the 'Vulpian-Dejerine' tradition has been decimated and left to find refuge in various peripheral institutions.

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[119]RAYMOND: Leçon d'ouverture, *Le Progrès Médical*, 1894, pp.399.

[120]CASTAIGNE, et al.: Centenaire de la clinique des maladies du système nerveux..., *La Revue Neurologique*, 1982, p.882.

[121]The first board of the Society included only ex-interns of Charcot's: Joffroy, Raymond, Pierre Marie, Henry Meige, and Souques.

[122]*Op. cit.* 120, p.883.

# CONCLUSION

Symbolically Charcot died far away from Paris, in a small provincial inn, attended only by two of his students. While Paris was divided by the death of the powerful mandarin, his School was shattered expecting the worst and his rivals rejoiced in his demise. Like Rayer earlier Charcot had become "a Prince of medical science" in his lifetime[1]. However, Charcot had left undeniable personal footprints in the path to create a new medical speciality: neurology.

This biographical study of Charcot's rise to fame reviewed two important chapters in the history of nineteenth century medicine in France. Both were re-examined using the same viewpoint: the workings behind the transition from belief or knowledge to social authority or power. They both illustrate that ideological shifts are clearly dependent on the ability of individuals to use social hierarchies to ensure diffusion of their ideas. In the first three chapters, we showed that a group of determined individuals supported by a few older medical statesmen, was able to ensure the reform of French academic medicine. The young physician-scientists who joined the 'Société de Biologie' during the late 1840's and early 1850's were able to invade the various academic and professional hierarchies to ensure the successful diffusion of their belief that medicine could and should become a *bone fide* science. That this group had a high degree of cohesion during the oppressive Second Empire is undeniable, furthermore, that the Republic which was to follow the fall of Napoleon III was to be

[1]Funérailles de M. Rayer, 1867, p.3

labelled the 'Scientific Republic' typifies how successful they and their allies had been in spreading their progressive ideals. However, with power the cohesion broke down, as individual aspirations came into conflict.

During this second period, Charcot stepped ahead of his colleagues thanks not only to his medical genius but also to his social and political opportunism. The second half of this thesis explored the means Charcot used to ensure a sort of political and ideological hegemony at the Medical Faculty of Paris. His enterprise, though no doubt smaller in scale than the one he had taken part in with his friends of the 'Société de Biologie', was accomplished nonetheless through similar mechanisms. For Charcot to become famous, he had to rely on different strategies. He had to acquire a high position in the academic and professional medical world, which he did when he became physician of La Salpêtrière in 1862 and professor of the Faculty in 1872. He had to gather a following of devoted pupils whose academic abilities were above average. He had to ensure a reputation in a field still in the early stage of its development, in this case neurology. He had to conceive a core ideology, in this case the shared belief in the anatomo-clinical method. He had to settle his School in an ideal work environment which the Salpêtrière became over the years. He had to increase his public visibility by engaging in research which caught popular imagination, his work on hysteria did just that. He had to have privileged means of diffusion of his ideas and the work of his students, the various journals he founded served this end. To ensure the loyalty of his pupils, he had to support them in all their concours, which he did with great dedication. Lastly, to secure the success of his enterprise, he cultivated close links with political allies, his friendship with Léon Gambetta being just one example of such relationships. Together, all of these strategies were at play to ensure the making of Charcot as a famous physician.

Life being a fatal illness and Charcot's autocratic style having brought him many enemies, decline was inevitable. Nevertheless, I have argued that Charcot's enterprise would have been entirely successful had it not been for the widespread knowledge of his impeding doom. The stakes were so high that Charcot could not prevent revolt from coming from within his own School.

However, Charcot's neurological tradition is still alive and well. In France, following a period of forced marginality at the Faculty with the appointment of Pierre Marie as 'Professeur de Clinique des Maladies du Système Nerveux' in 1917, Charcot's following recovered the upper hand which it still preserves in French neurology. Yet, Charcot's influence on contemporary neurology is even more strongly rooted. It is reflected today in the fascination of neurologists for defining new syndromes, probably more than other medical specialists, and the continued dominance of anatomo-pathological correlations in neurological nosology.

A few potentially rich sources of information still have to be tapped to achieve a more thorough understanding of the man and his decline. Charcot's family appears to have in its possession personal documents of great historical value. For example, a recent Paris exhibit on Charcot included a copy of Mme Charcot's guest book[2]. Such items could provide much insight into Charcot's friendships, the dynamics of his School and substantiate the active role he played in supporting his students and promoting his personal aspirations. The minutes of the Professorial Assembly of the Faculty of Medicine from the year 1889 onwards are not yet available for consultation. One can envisage that they will shed much light on Charcot's declining influence at the Faculty, and provide information on the turmoil that followed his death. These are a few of the

[2] *La leçon de Charcot*..., 1986. pp. 38-39. Exhibit held at the ' Musée de l'Assistance Publique de Paris' from 17 September to 31 December 1986.

major sources which could be studied in the future to provide a better understanding of Charcot and his times.

Charcot was one of the most famous medical luminaries of the nineteenth century. The magnitude of his fame was passed on to us somewhat tarnished by the aftermath of his death, and the rapid dismissal of his work on hysteria. Hopefully this thesis has shown that his ideas and gifted social abilities make Charcot one of the most fascinating medical statesmen of the last century.

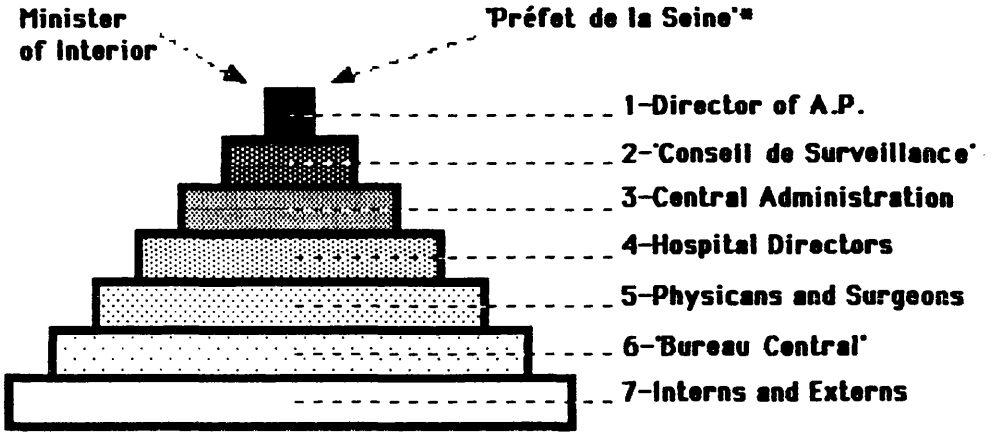
# APPENDIX I: MEDICAL STAFF OF THE SALPETRIERE HOSPICE (1851-1895)

| Year | Physicians | | Alienists | | | | | Surgeons |
|---|---|---|---|---|---|---|---|---|
| 1851 | Barth | Gillette | Falret | Mitivié | Lelut | Trélat | Baillarger | Manec |
| 1852 | Moissenet | Gazalis | | | | | | |
| 1853 | | | | | | | | |
| 1854 | | | | | | | | |
| 1855 | | | | | | | | |
| 1856 | | | | | | | | |
| 1857 | Chappotin | | | | | | | Cusco |
| 1858 | | | | | | | | |
| 1859 | Lasèque | | | | | | | |
| 1860 | Richard | | | | Marcé | | | |
| 1861 | | | | | Moreau | | | Follin |
| 1862 | Charcot | Vulpian | | | | | | |
| 1863 | | | | | | | | Broca |
| 1864 | | | | | | | | |
| 1865 | | | | | | | | Labbé |
| 1866 | | | | Delasiauve | | | | |
| 1867 | | | Voisin' | | | | | |
| 1868 | | | | | | | | Cruveil |
| 1869 | | | | | | | | |
| 1870 | | Luys | | | | | ' | |
| 1871 | | | | | | | | |
| 1872 | | | | | | | | |
| 1873 | | | | | | | | Meunier |
| 1874 | | | | | | | | |
| 1875 | | | | | | ' | | |
| 1876 | | | | | | | | Le Dentu |
| 1877 | | | | | | | | Perrier |
| 1878 | | | | Legrand | | | | |
| 1879 | | | | du Saule | | | | Terrier |
| 1880 | | | | | | | | |
| 1881 | | | | | | | | Charpent. |
| 1882 | * | | | | | | | Terrillon |
| 1883 | | | | | Falret | | | |
| 1884 | | | | | | | | |
| 1885 | | Joffroy | | | | Séglas | | |
| 1886 | | | | Voisin, J. | | | | |
| 1887 | | | | | | | | |
| 1888 | | | | | | | | |
| 1889 | | | | | | | | |
| 1890 | | | | | | | | |
| 1891 | | | | | | | | |
| 1892 | | | | | | | | |
| 1893 | | | | | | | | |
| 1894 | Raymond | | | | | | | |
| 1895 | | Dejerine | | | | | | |

Legend: ('): service dismantled; (*): also assistant-physician starting in 1882: Charpentier (1882-85) and Féré (1885-95); ('): V. Voisin. Source: "Almanach National", 1850-95.

# APPENDIX II: HIERARCHIES OF THE 'ASSISTANCE PUBLIQUE' AND THE FACULTY OF MEDICINE IN THE 1860'S

## 1-'Assistance Publique' (A.P.)




*The Fourth Commission of the Municipal Council advised the Prefect on desirable changes in the stucture or functioning of the A.P..

1-Appointed by the Minister of Interior since January 1861 from a list provided by the 'Préfet de la Seine'. The Director was helped in his functions by the General Secretary of the A.P..

2-Composed of 20 members since April 1849. All members were appointed for two years by the French President following the recommendations of the Minister of Interior, except for its president who was the 'Préfet de la Seine' and the 'Préfet de Police'. Its secretary was the General Secretary of the A.P.. The other members of tho 'Conseil de Surveillance' were: two municipal councillors, two mayors or their assistants, two administrators of the 'Comité d'Assistance des Arrondissements Municipaux', one State Councillor or a 'Maître des Requêtes au Conseil d'Etat', one member of 'la Cour de Cassation', one hospital physician, one hospital surgeon, one professor of the Medical Faculty, one member of the National Assembly, one member of the 'Conseil des Prud'hommes' and five from other professions.

3-The Central Administration numbered 114 employees in 1862, while the entire bureaucratic work force of the A.P. was of 487 employees.

4-There was one Director per hospital or hospice, they were 32 in 1862.

5-In 1862, there were 87 physicians, 34 surgeons and 18 pharmacists with hospital or hospice appointments.

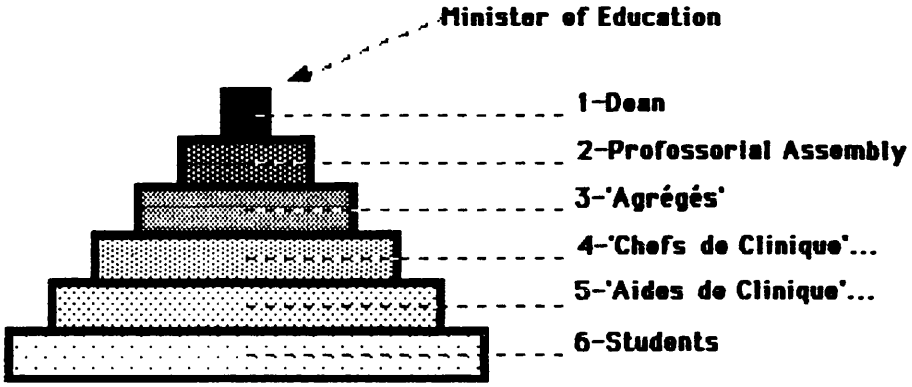
6-The physicians of the 'Bureau Central' were recently selected physicans awaiting a hospital appointment. In 1862, there were 12 physicians and 6 surgeons.

7-All interns and externs were selected by 'concours'.

Source: HUSON: "Etude sur les Hôpitaux", 1862, pp.548-56.

# APPENDIX II: HIERARCHIES OF THE 'ASSISTANCE PUBLIQUE' AND THE FACULTY OF MEDICINE IN THE 1860'S

## 2-Faculty of Medicine of Paris (F.M.)




1-The Dean was appointed by the Minister of Education with or without the approval of the Professorial Assembly.
2-Usually professors were selected from the pool of 'agrégés' by the Minister of Education with or without prior consultation with the Dean and the Professorial Assembly. Number of Professors: 25 in 1860, 27 in 1869, 29 in 1875 and 33 in 1888.
3-'Agrégés' were selected for 9 years by 'concours'.
4-The 'Chefs de Clinique' were selected for 4 years by 'concours' starting in 1863. They numbered 4 in 1860, 9 in 1880 and 17 in 1881. There was also one 'Chef des Travaux Anatomiques'. Starting in 1867, there were one 'Chef des Travaux Chimiques', and in 1880 one 'Chef des Travaux Physiologiques'.
5-The 'Aides de Clinique' numbered 4 in 1863, 9 in 1880 and 17 in 1881. In 1880, there was also 20 'Aides d'Anatomie' and 8 'prosecteurs d'Anatomie'.
6-There were 2000 to 3000 students registered at the Medical Faculty during the 1860's and 1870's.

Source: CORLIEU: "Centenaire de la Faculté de Médecine de Paris...", 1896, pp.164-66.

# APPENDIX III: THE INTERNS OF CHARCOT AND VULPIAN AT THE SALPETRIERE HOSPICE

## 1-Charcot's Interns at the Salpêtrière (1862-93)

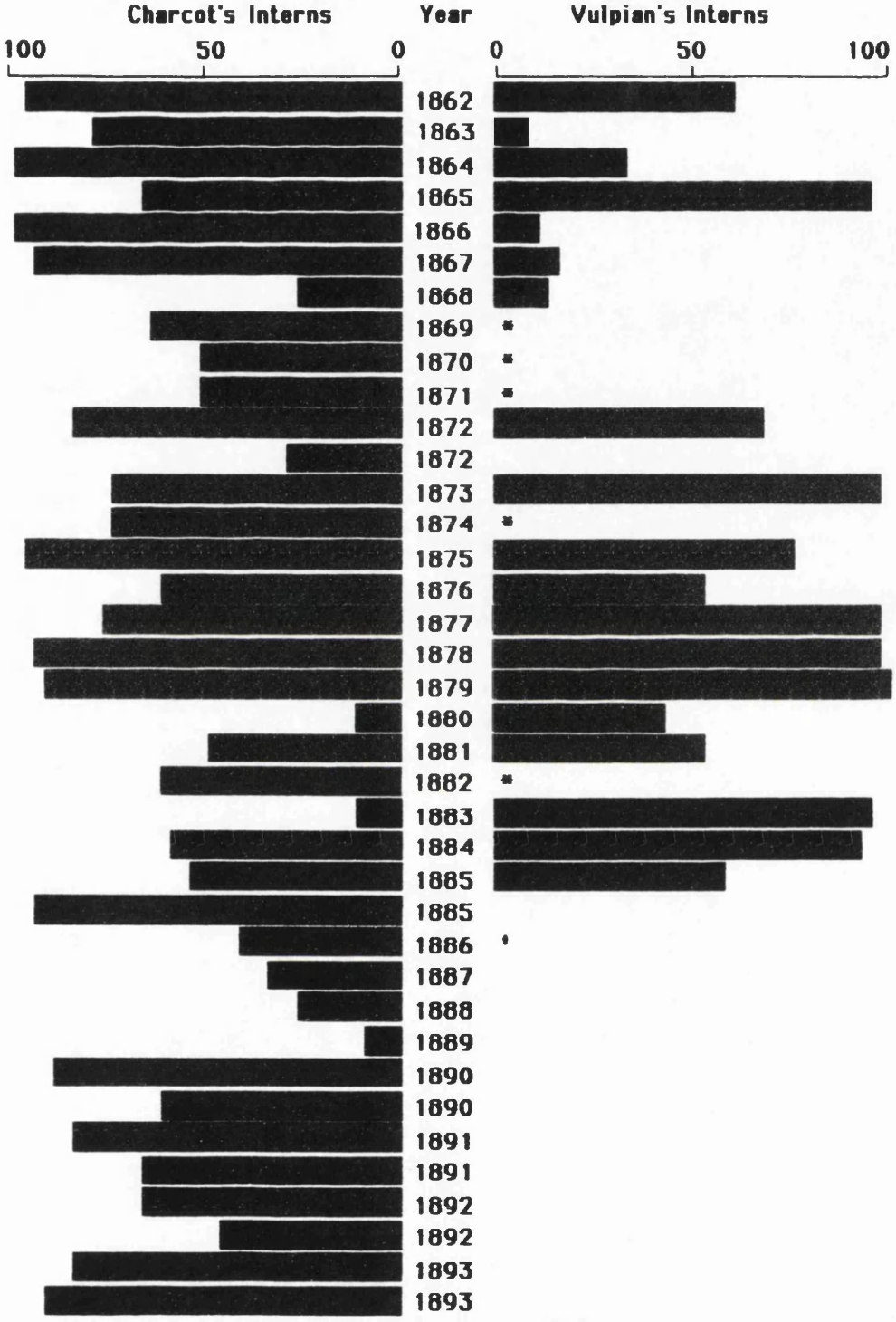
| Year of Internship | Name | Year of Internship | Name |
|---|---|---|---|
| 1862 | SOULIER, P.H. | 1880 | BALLET, L.G. |
| 1863 | CORNIL, A.V. | 1881 | FERE, Ch. |
| 1864 | BOUCHARD, Ch. | 1882 | MARIE, P. |
| 1865 | COTARD, J. | 1883 | BERNARD, A.D. |
| 1866 | BOUCHARD, Ch. | 1884 | GILLE DE LA TOURETTE |
| 1867 | LEPINE, J.R. | 1885 | GUINON, G. |
| 1868 | BOURNEVILLE, D.M. | 1885 | BABINSKI, J. |
| 1869 | JOFFROY, A. | 1886 | BARBEZ, P.A. |
| 1870 | MICHAUD, J.A. | 1887 | BLOCQ, P.O. |
| 1871 | MICHAUD, J.A. | 1888 | HUET, E.H. |
| 1872 | HANOT, V. | 1889 | DUTIL, A. |
| 1872 | GAMBAULT, A. | 1890 | SOUQUES, A.A. |
| 1873 | DEBOVE, G. | 1890 | PARMENTIER, E.J. |
| 1874 | PIERRET, A. | 1891 | CHARCOT, J.B. |
| 1875 | RAYMOND, F. | 1891 | HALLION |
| 1876 | PITRES, A. | 1892 | GUYON, F.J. |
| 1877 | OULMONT, P. | 1892 | LAMY, H.E. |
| 1878 | RICHER, P.P. | 1893 | CHARCOT, J.B. |
| 1879 | BRISSAUD, E. | 1893 | LONDE, P.F. |

## 2-Vulpian's Interns at the Salpêtrière (1862-68)

| Year of Internship | Name | Year Internship | Name |
|---|---|---|---|
| 1862 | LEMOINE, A.V. | 1866 | BOUCHEREAU, L.G. |
| 1863 | MOURETON, J.L. | 1867 | HAYEM, G. |
| 1864 | DE BETZ, P.A. | 1868 | LIOUVILLE, H. |
| 1865 | PROVOST, J.L. | | |

Source: "Registre des employés de la Salpêtrière", Archives de l'Assistance Publique.

# APPENDIX IV: STANDING OF CHARCOT AND VULPIAN'S INTERNS AT THE 'CONCOURS DE L'INTERNAT' (1862-93)




LEGEND: (*): not available; ('): Vulpian retired from his Hôtel-Dieu service in 1886; the rank-order of each intern was calculated by substracting from one hundred his rank on the exam devided by the total number of successful candidates multiplied by one hundred.

SOURCE: "Registres des emloyés de la Salpêtrière, de la Pitié et de Hôtel-Dieu", Archives de l'Assistance Publique; and "Annuaire de l'Internat", 1964.

## APPENDIX V: Staff of Charcot's 'Clinique des Maladies du Système Nerveux' at the Salpêtrière Hospice (1882-93)

| Year | Chef de Clinique | Chef de Clinique Adjoint | Chef de Laboratoire | Chef des Travaux Anatomiques |
|---|---|---|---|---|
| 1882 | Ballet (80) | | | |
| 1883 | Marie (82) | | Richer (78) | Féré (81) |
| 1884 | ▮ | | ▮ | ▮ |
| 1885 | Babinski (85) | | | |
| 1886 | ▮ | Marie | | |
| 1887 | Tourette (84) | Berbez (86) | | Marie |
| 1888 | ▮ | ▮ | | ▮ |
| 1889 | Guinon (85) | | | Blocq (87) |
| 1890 | ▮ | | | ▮ |
| 1891 | ▮ | | | |
| 1892 | Dutil (89) | | | |
| 1893 | Souques (90) | | | |

| Year | Head of Ophthalmology Department | Head of Electro-Therapeutics | Head of Photography Department | Head of Casting Department |
|---|---|---|---|---|
| 1882 | | | | |
| 1883 | Parinaud | Vigouroux | Londe | Loreau |
| 1884 | ▮ | ▮ | ▮ | ▮ |
| 1885 | ▮ | ▮ | ▮ | Hurel |
| 1886 | ▮ | ▮ | ▮ | ▮ |
| 1887 | ▮ | ▮ | ▮ | ▮ |
| 1888 | ▮ | ▮ | ▮ | ▮ |
| 1889 | ▮ | ▮ | ▮ | ▮ |
| 1890 | ▮ | ▮ | ▮ | ▮ |
| 1891 | ▮ | ▮ | ▮ | ▮ |
| 1892 | ▮ | ▮ | ▮ | ▮ |
| 1893 | ▮ | ▮ | ▮ | ▮ |

LEGEND: (80): year of internship at the Salpêtrière; (¦): position not yet created; and (▮): same position.

SOURCE: "Almanach National", 1882-93.

# APPENDIX VI: PARTIAL STUDY OF CHARCOT'S INTERNS COLLABORATION TO THE 'PROGRES MEDICAL' (1873-79) AND THE 'ARCHIVES DE NEUROLOGIE' (1880-86)

| Year of Internship | Intern | Year of First Coll. to the P.M. | Year of First Coll. to the A.N. |
|---|---|---|---|
| 1862 | Soulier | | |
| 1863 | Cornil | 1873 | |
| 1864 | Bouchard | | 1880 |
| 1865 | Cotard' | | |
| 1867 | Lépine | | |
| 1868 | Bourneville | 1873 | 1880 |
| 1869 | Joffroy | 1873 | 1880 |
| 1870 | Michaud | | |
| 1872 | Hanot | 1873 | |
| 1872 | Gomgault | | 1882 |
| 1873 | Debove | 1873 | 1881 |
| 1874 | Pierret | 1873 | 1880 |
| 1875 | Raymond | 1873 | 1880 |
| 1876 | Pitres | 1873 | 1880 |
| 1877 | Oulmont | 1874 | |
| 1878 | Richer | 1879 | 1880 |
| 1879 | Brissaud | 1877* | 1880 |
| 1880 | Ballet | | 1880 |
| 1881 | Féré | 1878 | 1880 |
| 1882 | Marie | | 1880 |
| 1883 | Bernard | | 1882 |
| 1884 | Tourette | | 1885** |
| 1885 | Guinon | | |
| 1886 | Berbez | | |

(P.M.): Progrès Médical; (A.N.): Archives de Neurologie; ('): Cotard died in the 1860's; (*): studied until 1879; and (**): studied until 1886.

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The public archives consulted in Paris included: Les Archives Nationales, les Archives de l'Assistance Publique, Manuscript Collection of the National Library, and the archives of the Charcot Library of the Salpiêtrière Hospital. The private archives used in London were: the Archives of the Freud Museum, and the Autograph Letters Collection of the Wellcome Institute for the History of Medicine. I also had access in Paris to the private papers of Pierre Marie and Jules Dejerine.

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