## Jean-Martin Charcot and the Epilepsy/Hysteria Relationship

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## ABSTRACT

Research from many perspectives has been made on the work of the French neurologist, J.-M. Charcot (1825–1893) with particular reference to his fame for his studies and "construction" of hysteria. What has not been demonstrated so far is the extent to which Charcot's construction can be explained by the perceived relationship between hysteria and epilepsy and Charcot's access to epileptic patients at La Salpêtrière. From the confusion that reigned concerning hysteria and epilepsy, both separately and in relation to each other, Charcot claimed to have isolated hysteria as a distinctive and universal pathology. This claim was partly based on the "grande attaque", representing the most intense degree of hysteria. A comparison with Gowers, the contemporary English neurologist suggests that diagnosis was the function of the practitioners' preferences; and a linguistic analysis pinpoints Charcot's problems in describing an isolated pathology in terms of its relation to its neighbour, epilepsy.

Keywords: Epilepsy, hysteria, "grande attaque", hystero-epilepsy.

## INTRODUCTION

Any historical research into the topic of hysteria soon reveals the almost bewildering abundance of studies that have been made, so much so that Micale (1995) has claimed that the history of nysteria is highly important as a cultural phenomenon. In "Approaching Hysteria", he nakes a critical appraisal of what he calls the "new hysteria studies" which he identifies as beginning in the late 1970s and comprising oremostly the feminist interpretations of hysteia, and also medical, social, cultural and politial approaches. The topic of hysteria thus presents us with a "daunting historical eclectism: osycho-medico-socio-cultural scholarship" (p. 288). Micale would like to see an interdisciplinrry and cross-cultural approach which would mify and synthesise these various approaches. Failing this, according to Micale's historiographic recommendations, the researcher should explain the approach being adopted. He asserts hat, as all history writing is perspectival, the

historians should "acknowledge as explicitly as possible the perspectives they have chosen." (p. 129)

## AIMS AND METHODOLOGY

It is generally agreed that it was the French neurologist Jean-Martin Charcot (1825-1893) who brought the phenomenon of hysteria into prominence for the medical profession and laity alike. The context of my research is therefore the last three decades of nineteenth century France, with particular reference to the work of Charcot and his descriptions of hysteria. My thesis is that his construction of hysteria is substantially indebted to epilepsy in various ways-through his direct access to epileptic patients; to the mutual influences of epileptic and hysteric patients upon each other; to Charcot's apparent preference for a diagnosis of hysteria over epilepsy; and to the confusion in terminology which allowed him to describe a form of a hystero-epileptic attack as

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"hystérie". This does not challenge Jan Goldstein's thesis (1982, 1987) that Charcot's construction of hysteria was in part political, but seeks to complement it.

My research has involved an examination of contemporary perceptions and diagnoses of epilepsy and hysteria and their relationship, and the clinical and theoretical traditions to which Charcot was heir. Given these research procedures and the focus on Charcot's method and an analysis of his descriptions, we may claim to be adopting a predominantly internalist approach, but giving consideration to the institutional context and to personal motivation.

## CHARCOT'S CLAIMS

Micale (1990b, p. 80) has pointed out the tendency among researchers of hysteria to focus on the hysterical attack, thus implying that it was the most important or characteristic aspect of Charcot's work on hysteria, to the neglect of the other aspects (eg. subforms of hysteria in traumatic neuroses) with which Charcot was concerned. The centrality of the attack may be partly attributable by Charcot himself, for he encouraged and participated in the iconography of this spectacular disorder as it appeared in the attack. His student and "disciple" Paul Richer

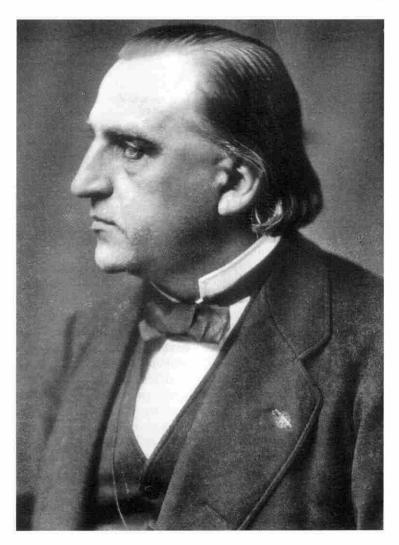


Fig. 1. Jean-Martin Charcot (courtesy of the Wellcome Institute Library, London).

(1849-1933) produced in 1879 a "Description de la Grande Attaque hystérique" as formulated by Charcot - the attack which he claimed to represent the most intense degree of hysteria. In 1881 this was followed by Richer's compendium, "Etudes Cliniques de l'Hystéro-Epilepsie" with over one hundred illustrations. Conceptually, the grand attack was important to Charcot for he claimed that, being a demonstration of true hysteria, it threw light on other and attenuated forms of the attack. But the clinical status of hysteria was generally unclear when Charcot gave his first lecture on this topic in 1870. At that time, as Micale writes, "epilepsy and hysteria were hopelessly confused and a good quarter of the cases in the French medical literature during the later nineteenth century carried the hybrid label of hystero-epilepsy" (1995, pp. 71-72). Although Charcot used the term hystero-epilepsy as an alternative to hysteria, he nevertheless intended it to denote the manifestations of true hysteria. He remarked to Gilles de la Tourette (1893) that the two disorders were unrelated. This strong claim was supported by the differential criteria that he established and described in for example, Charcot (1872–1873), Richer (1879, 1881) and Charcot and Pierre Marie (1892). Charcot's further claims were that hysteria was not confined to one country, nor was it just a contemporary disorder: he made retrospective diagnoses whereby demonic possession, extreme religious experiences, ecstasy and hallucinations and phenomena like those of the "Convulsionnaires de Saint Médard", for example, could be explained in terms of hysteria. In other words, behaviours given religious or other explanations in the past could now be subject to what Charcot believed to be scientific scrutiny. His construction of hysteria as a distinct disorder was a product of his pursuit of scientific endeavour.

## JEAN-MARTIN CHARCOT (1825-1893)

During his medical training Charcot worked as an intern at the Paris hospitals of La Salpêtrière, La Pitié (1850), and La Charité (1851), and it was to La Salpêtrière that he returned in 1862 when he was appointed "médecin de l'Hospice de la Salpêtrière". Here he initiated "cours libres", semi-public lessons mainly on the disorders of old age, for he had access to a great many elderly long term patients. Between 1862 and 1870 he laid the foundations for a new medical speciality, neurology. In 1872 he was elected to the Académie de Médecine and in 1883 to the Académie des Sciences. His appointment in 1882 to the Chair of Neuropathology - a chair created especially for him - was in recognition of his work in neurology of which his autopsies and lessons on localisations of the brain and the medulla were the most esteemed. However, from the mid 1870s onwards some of his interest shifted towards hysteria, and this interest gradually became almost an obsession. It was for his public lessons and demonstrations on hypnotised hysterics that his fame grew among the medical body and members of the public, particularly during the 1880s. In order to understand this orientation, his work with hysteric patients, the diagnosis that he created with regard to the hysteria and the claims he made about its nature, we need to examine the institutional context in which he worked for the greater and last part of his career, namely La Salpêtrière.

## LA SALPÊTRIÈRE

According to the historical description of Nadine Simon (1986), L'Hôpital Général served as a general asylum which, by the nineteenth century, housed the "marginal" or problem population which found its way there. These consisted of the poor, the old, vagrants, orphans, foundlings, criminals, alcoholics, "sexual perverts", syphilitics, epileptics and the insane - in other words those who did not conform to mainstream or "normal" society. La Salpêtrière complex formed the principal part of this general asylum, and by 1886 comprised forty-five major buildings. The principal changes which took place over this period were the introduction of scientific and teaching facilities, the laicisation of the staff, and institutional differentiation according to diagnoses. As a result of the latter, by the second half of the nineteenth cen-

tury the population of La Salpêtrière consisted mainly of the elderly and those deemed insane. They were female patients of long term stay, hence the title, Hospice de la Vieillesse -Femmes, Both Simon (1986) and Pierre Marie (1853-1940) in his "Eloge de Charcot" (1925) described a particular reorganisation that took place in the Hopital Général in 1867 because of the dilapidation of the Sainte-Laure building; as a result, Charcot inherited the section belonging to the psychiatrist L.J.F. Delasiauve whose patients consisted of three ill-defined categories, namely, the insane, hysteric and epileptic. The latter then were divided into the sane and the insane ("épileptiques non-aliénées" or "simples") and these, together with the hysterics, were allotted to Charcot to comprise his new section, known as the "Quartier des Epileptiques". The allocation of the epileptics was apt, given Charcot's expertise in neuropathology. It was a fairly general practice to include hysterics in with groups of epileptics without making a formal differential diagnosis. The clinical admixture was deemed convenient in practical terms since hysteria and epilepsy's common denominator was the "attack". Temkin (1971) relates how Jean-Etienne Esquirol (1772–1840) and Louis Cameil (1789-1895) studied case histories of three hundred and eighty five women in a ward for epileptics and suggested deducting forty six as hysteric, ie. nearly twelve percent, which may have been the proportion of hysterics in Charcot's section of epileptics which he inherited from Delasiauve. In fact, in his eleventh lesson (1872-1873), Charcot refers to five patients as being nearly the total number of hysterics in his section, the "division consacrée ... aux femmes atteintes de maladies convulsives, incurables, et réputées exemptes d'aliénation mentale." (p. 284)

## EPILEPSY AND ITS CLINICAL STATUS

The creation of sections for epileptic patients within La Salpêtrière and other hospitals and hospices during the mid 1880s shows that epilepsy at least, was perceived as being amenable to classification as a disease; in fact it had been

known to the Egyptians and was often dubbed "the falling sickness". While it is commonly recognised that hysteria in its symptoms often perplexed the physicians, it is not often stated that in the nineteenth century the diagnosis of epilepsy was not always clear-cut and that controversy existed over the various forms of this disorder. To some extent it shared the protean quality of hysteria. In his entry in the "Dictionnaire des Sciences Médicales" (1815), Esquirol refers to different forms of epilepsy by the use of the following ill-defined epithets: "épilepsie sympathique; épilepsie essentielle; épilepsie idiopathique; and épilepsie génitale." In 1887 Burlubeaux made a long entry in which he referred to "épilepsie vulgaire; symptomatique; partielle; syphilitique; spinale; toxique", as well as to "pseudo-épilepsie" and "vertige épileptique". In addition he made reference to non-convulsive epilepsy which he claimed was related to migraine, angina, tics, amnesia, sleeping sickness and somnambulism. In other words, in the nineteenth century epilepsy embraced a variety of clinical states. The strangeness of this disease and the frightening aspects of the epileptic convulsion led to various myths. Esquirol himself described epilepsy as a "maladie extraordinaire", the results of which were always serious for the patient who often fell into incurable madness ("démence"), and he confirmed the link between epilepsy and mania. Alègre (1833), and Dupont (1849), in their medical theses expressed similar pessimistic views, giving a sinister prognosis and confirming the affinity between epilepsy and madness. According to Burlubeaux it was universally accepted that epilepsy was transitory madness ("aliénation mentale transitoire"). This perception of the link between insanity and epilepsy may partly explain why both sane and insane epileptics were in the first instance, lodged together. There may have been a further reason: reference to Lanteri-Laura's essay on semeiology (1980) points to a counter-intuitive phenomenon, i.e., that the semeiology of hallucinations and "délires" preceded neurology, resulting in the classification of disorders such as Parkinson's and epilepsy as "névroses". This classification was reflected in the general view that epilepsy was a moral as well as a physical form of degeneracy. Such considerations help to explain the composition of the original group of patients belonging to Delasiauve and to the "epileptic section" which Charcot inherited from him in 1867.

In the second half of the nineteenth century, John Hughlings Jackson (1835-1910) was one of the leading specialists in epilepsy, and Charcot knew his work. Articles on this disorder include "on Epilepsy and Epileptiform Convulsions" in "Selected Writings" (1958). Jackson claimed that epilepsy was caused by a "discharging lesion" in some unstable cells. It was the idiopathic variety which Jackson termed "epilepsy proper" under his clinical arrangement, and differentiated this from partial epilepsy which could be associated with some type of morbid anatomy such as syphilis or a tumour. Charcot and Jackson knew each other's work, and there does not seem to have been any major disagreement between them as to the nature of epilepsy. Charcot pointed out that epileptiform seizures had been described by Bravais in 1824, and it is probable that Jackson also knew Bravais' work. In addition Jackson was stimulated by the experimental work of Brown-Séquard (1817-1893). Part of Charcot's teaching included lectures on epilepsy while his formal hospital responsibility (as distinct from his out-patients clinic and private patients) was with the epileptic section which in 1888 housed some two hundred patients.

As a neurologist Charcot became well known for his ability to make fine distinctions in his clinical observations. For example, in the case of a patient who underwent spells or episodes of ambulatory automatisms of which he had very little recollection, Charcot came to the conclusion that the man had experienced unusual epileptic seizures: Charcot in other words, proposed a form of epilepsy, or epileptic somnambulism. He gave two main reasons for his diagnosis: firstly, that in primary somnambulism episodes usually took place at night, and secondly, that in the case of this particular patient

bromide lessened the incidence and duration of the episodes. In this same Tuesday lesson of the 31st January, 1888 Charcot discussed the symptoms of petit mal and grand mal in which he pointed out that the results of the former could be even more serious than its name implied. As late as the 1880's Charcot still had responsibility for many epileptic patients at the Salpêtrière and remained scientifically interested in epilepsy during this period of his career, usually identified with his study of hysteria.

One reason epilepsy, and to a lesser extent hysteria, evoked feelings of alarm and fear in Charcot's time was because of its association with degeneracy. Dowbiggin (1991) explains the origins of degeneracy theory in the second half of the nineteenth century in France, tracing these in the work of Prosper Lucas (1850), Morel (1857), Moreau de Tours (1859) and the extension of the latter's views in the work of Charles Féré (1884). Moreau de Tours had proposed a "functional lesion" to account for insanity, and he and his followers claimed that there was a common source to diseases such as chorea, meningitis, typhoid, alcoholism, epilepsy and hysteria, and all were transmitted through heredity. According to degeneration theory, the predisposition to any one or more of these disorders was due to an inherited flaw or "diathesis" - a diffused condition or disequilibrium in the nervous system. The key neurological disorder was thought to be epilepsy (Féré, 1884) and its appearance in any family member to be indicative of a heritable flaw. The topic of heredity and its importance was popularized by the influential psychologist, Théodule Ribot, in his "Hérédité Psychologique" (1873). Charcot admired Ribot's work, and he accepted the importance of heredity, the existence of diatheses and functional lesions. According to Micale (1993, p. 505), "His (Charcot's) printed case presentations and unpublished clinical records show that a percentage of his hysterical patients during the 1880s came from households with epileptic family members" - thus supporting, to some extent, a theory of degeneration.

## CONCEPTIONS OF HYSTERIA

In spite of the lack of formal classification of hysteria, there had long been a recognition of the symptoms which were both variably and invariably associated with hysteria. There were many different cultural and literary expressions of this so-called disorder, and they were mainly associated with young females, given the etymology of the term originating from "hysteria" or womb, whose wanderings were believed to cause the symptoms. Charcot was familiar with traditional views of hysteria, and he probably knew the work of Thomas Sydenham (1624-1689) who had stressed the clinical fluidity of hysteria and its mimetic capacity. He knew the work of Paul Briquet (1796-1881) whose "Traité clinique et thérapeutique de l'Hystérie" (1859) he often praised. In this work he asserted that hysteric symptoms "obeyed laws that could be determined; that the diagnosis could be made with as much precision as other diseases..." The core of Briquet's thinking for Charcot surely lay in this reference to the possibility of making a precise diagnosis of hysteria by the identification of its laws, for Charcot's search for laws was in accord with his belief in a new scientific method.

Micklem (1996, p. 3) sums up the paradoxical nature of the usual perceptions of hysteria thus: "Hysteria is protean: a multi-faced disease presenting such a wide variety of appearances that it has earned the reputation in some circles of being an absurd ailment with a fair proportion of incomprehensible symptoms"; yet it "projects an image consistent enough to have gained recognition as hysteria". In other words, hysteria was often seen and diagnosed - to use a modern term - as a disease entity. Yet because of its protean and polysymptomatic nature and its perceived ability to simulate other disorders it was problematic in that it defied classification - the "mocking bird of nosology" as dubbed by Johnson in 1849 (p. 5).

As late as 1887 in "Leçons sur les Maladies du Système Nerveux" Charcot asserted that "we see convulsive phenomena reproduce even an almost perfect imitation the symptoms of partial epilepsy ("Nous voyons les accidents convulsifs reproduire jusqu'à l'imitation parfaite les symptômes de l'épilepsie partielle" (p. 286). What is not clear in Charcot's statement and in those of others who refer to "imitation" is what is exactly meant by the term "imitate" with respect to medical conceptions of physical processes and diagnosis. Do the symptoms simply look alike, or do they indicate some substantive relation between the two disorders? As noted above, according to degeneracy theory similarities between certain disorders could be accepted and explained by heredity: diseases and pathologies could overlap or manifest themselves in different ways, even resulting in metamorphoses in the same individual. Thus as Ribot (1873) claimed, convulsions could change into epilepsy, epilepsy into hysteria, and vice versa. While Charcot accepted such claims, he was no doubt discontented with the inadequate nosographical aspects of such views of epilepsy and hysteria, and he preferred to make a differential diagnosis, and to claim for hysteria the status of a distinctive pathology. But it should not be forgotten that the initial situation in which Charcot worked (from 1867 until the mid 1870s) was predominantly with epileptic patients, among whom no formal diagnosis of hysteria had been made.

## THE EPILEPSY-HYSTERIA RELATION-SHIP

In his daily practice Charcot must have become familiar with the attacks and convulsions symptomatic of epileptic patients in his charge. He no doubt knew something of the practical work of Delasiauve, the psychiatrist who was responsible for the section of epileptics and hysterics both "aliénées" and "non-aliénées" before he took over his sane patients. According to Temkin (1971), Joseph Frank (1771–1842), as well as Esquirol and Cameil, knew that their groups of epileptic patients included a number

<sup>&</sup>lt;sup>1</sup> Cited in F. Mai, 1983, p. 418,

of hysterics. The same situation applied to Charcot who was well aware, too, of the conceptual confusions between epilepsy and hysteria: however, he did not see this as a reason for giving up efforts to make distinctions in diagnosis. One of the features of his personality was surely persistence, a reluctance to accept incoherence, and an intolerance of ambiguity.

The problematic relationship between epilepsy and hysteria had already come under discussion before the nineteenth century, for example by Willis (1621-1675) who had suggested that the cause for the similarity between epilepsy and hysteria was to be found in the spirits that inhabited the brain. Etienne-Jean Georget (1795-1828) claimed that epilepsy and hysteria were on a continuum (1837). By the 1870s Charcot's views on the relationship were emerging, and in "Leçons sur les Maladies du Système Nerveux" (1872-1873) he described how, according to the "doctrine of the day", hysteric attacks ("attaques") and epileptic convulsions ("accès") could manifest themselves independently of each other; and, according to a more controversial view in which epilepsy and hysteria were deemed to be coequal, the crises could be mixed, i.e., "attaques-accès". These represented "hystérie épileptiforme", involving only an incomplete form of classic epilepsy or "épilepsie type". This view was confirmed in Richer's report "Description de la Grande Attaque Hystérique" (1879): this type of attack of hystero-epilepsy "à crises mixtes" represented the highest degree of hysteria - a view that Charcot had defended for a long time. I suggest that Charcot chose this form of hystero-epilepsy because it allowed him to acknowledge and incorporate epileptic aspects into the crisis, but at the same time relegate them to the appearance ("forme") of epilepsy, but not to its substance.

# CHARCOT'S APPROACH AND METHODOLOGY

Accounts of Charcot's approach and methods can be found in Janet (1895), Lellouch (1989) and Goetz et al. (1995). We know that on his

appointment as physician and chief of service at La Salpêtrière, Charcot inherited the method for which French medicine was famous, and became known as the "médecine d'hôpital", primarily a method which relied upon observation of patients' symptoms and an accurate description of these. An example of this method can be found in Charcot's statement that the medical problem should precede the physiological explanation<sup>2</sup> – in other words that diagnosis should be pathology-led. In his teaching Charcot favoured a method of comparison; for example, a close physical examination of one patient would be followed by that of others, and as a result of his penetrating gaze Charcot would point out similarities and differences to be taken into account when making a diagnosis. Such observations enabled him to find both common denominators and distinguishing features in the pathologies. He also found parallels among different fevers. Careful observation also led him to identify different varieties of Bright's disease; some of his fame also rests on his separation of amyotrophic lateral sclerosis (to become known as Charcot's disease) from a more general muscular atrophy. These methodological procedures served to satisfy his passion for classification, and are evidence of what Lellouch described as Charcot's prodigious capacity for creative nosology. It was precisely this capacity and method of analogy and differentiation that were applied to his observations of hysteria and epilepsy, as a description of "la grande attaque" shows.

The morphological imperative entailed by the clinical approach also led Charcot to look for – and find – the physical stigmata in hysteric females. They were situated in what he termed the hysterogenic zones, the points in the female body which when pressed could set off an hysteric crisis. Brown-Séquard (1860) had found epileptogenic zones, and Charcot found a convenient parallel to these. He also knew that during the epileptic "aura" the application of a ligature or compression was sometimes found to be effective. In a similar situation i.e., that of the "aura hysterica", Charcot emphasised the role

<sup>&</sup>lt;sup>2</sup> Cited in Janet, 1895, pp. 572-573.

of ovarian compression in relieving hysterical symptoms. Lellouch has also pointed out Charcot's observations of parallels. For example, he differentiated "rhumatisme articulaire chronique" from gout, by identifying them as being in parallel. It seems to me that the metaphor of the parallel can be more useful than an analogy by itself in that the former is double edged - it can suggest a similarity but also, by virtue of its spatial features incorporate the notion of differentiation. Did Charcot have in mind the notion of parallels when he based his description of the "grande attaque" on the model of epilepsy? The metaphor would have been useful to him for it allowed for analogy, as in "epileptoide" (like epilepsy), but could also accommodate a distinction between the two. The adoption of parallelism was useful in a wider application, for in the hands of Moreau de Tours for example, and others, the functional lesion was used as a sort of explanation of behavioural phenomena and symptoms which mirrored an explanation in terms of an organic lesion. Apart from the methodological principles of finding parallels, similarities and distinctions in the pursuit of classification, Charcot put into practice the principle of describing what he termed the "type". Charcot's own words explain this: "The method of studying types is fundamental in nosography...It is indispensable for identifying a particular (definitive) pathological species out of the chaos of vague ideas...But once the type has been constituted comes the turn of the second nosographic operation: one must learn to recognise the type and to analyse it ("morceler"). In other words one must learn to recognise the imperfect cases, the rough or partial and rudimentary forms: then the disorder created by the method of types appears in a new light."3

The question following this is to ask how Charcot proceeded to construct this type. He claimed that the majority of cases were exceptional, irregular or complicated forms of whatever disorder he was observing. The type did not present the greatest number of symptoms but the

clearest, those most accessible to observation and to our understanding. They also formed an ensemble, by virtue of their interdependence. These combinations of symptoms allowed them to be distinguished from neighbouring or similar disorders. One is immediately struck by the artificial nature of the constructed entity: firstly, certain symptoms are put together to form a whole, then by a process of analysis, partial versions of the type can be identified. He claimed that one should study these "grands types" before approaching the study of their incomplete or attenuated forms. Charcot himself was aware of the inconvenience of this method: he claimed that it was "trop absolu" - meaning that the type was, in some sense, an abstraction from reality, an artificial construct? We might also wonder whether Charcot was dupe of the "fallacy of idealism" as suggested by Micale (1993a). Whatever the merits or faults of this method, it was the one that Charcot used to demonstrate the grand attack of hystero-epilepsy, the prototype of what he claimed to be "true" hysteria.

The explanation for the use of types by Charcot has been attributed both by Lellouch and Janet as partly satisfying teaching requirements and to achieve the clarity for which he became famous among medical students and other audiences. More importantly, the creation of types stemmed from his view of laws and was therefore a methodological requirement, for by embracing the cause of what he saw as a new scientific approach, it was incumbent upon him to undertake this method. This entailed the formulation of patterns or laws - in other words, to go beyond the reliance on descriptive morphology and the data of observations. Janet (1895) reminded us of the "fatalism" or determinism within Charcot's thought: "Nothing is delivered by chance...on the contrary everything happens according to laws, common both inside and outside the hospital, laws which apply to all countries, for all times and for all races, and consequently are universal" (Charcot 1887, p 15). Such a view legitimised his construction of the type and, in the case of hysteria, conveniently, it also allowed him to incorporate epileptic phenomena into this whole or type, as an analysis of

<sup>&</sup>lt;sup>3</sup> Cited in Janet, 1895, p. 573, my translation.

the language of Charcot's "grande hystérie" will show.

## LA GRANDE HYSTERIE

The year 1872 marks the point at which Charcot formulated his first definite diagnosis of hysteria as an entity distinct from epilepsy, for in this year he set out his lessons. The fourth one, for example is dated the 4th June. Richer's descriptions of the "grand attack" as formulated by Charcot can be found in "Le Progrès Médical of 1879 and in "Etudes Cliniques sur l'Hystéroépilepsie ou Grande Hystérie" (1881). According to these descriptions "l'Hystéro-Epilepsie à crises mixtes" includes the prodromes, or the precursory signs as well as the four "périodes" or stages. The prodromes included "secousses épileptoides" (epileptic-like spasms, a prelude to an epileptoid convulsion) and the "globus hystericus" or choking, once known as the "suffocation of the mother", where mother was synonymous with womb, and ovarian pain.

The first stage was called the "période épileptoide", resembling the epileptic attack. This was divided into three phases - tonic, clonic and its resolution. In the tonic (wild) stage, limb movements were followed by loss of consciousness, paleness and distortion of the face, protrusion of the tongue, foaming at the mouth, then immobility (tetanism of the whole body). In the clonic phase, the limbs stiffened and were subject to localised spasms which later became more general. Then there was calm. The second stage was characterised by violent sweeping movements and contortions of which the "arc-en-cercle" was the most well known. and he gave the term "clownisme" to such movements. Rage and wild movements were termed "demonic". In the third stage, the hysteric adopted emotional poses or "attitudes passionnelles" and was subject to hallucinations. Finally consciousness was regained, often accompanied by painful cramp.

What Richer set out was Charcot's construction of the classic case by including the defining behaviours of hysteria. Where individual attacks failed to conform entirely to the classic case, these were described as "frustre" (ie. rough versions) but were not deemed to invalidate the prototype. We may think of this description as the almost inevitable result of Charcot's "impulse to order" which served as a method of constructing a diagnostic category, an important aim in Charcot's seemingly ambitious scheme as a neuropathologist.

## DIFFERENTIAL DIAGNOSIS

In the early nineteenth century a clinical distinction between hysteria and other seemingly neighbouring disorders presented a daunting task. However, there was some realisation that a distinction between hysteria and epilepsy was needed for theoretical reasons and for the practical purpose of treatment. Temkin (1971) points out that by the middle of the nineteenth century the use of bromide for the relief and attenuation of epileptic fits was in use. But as early as the 1840s, some attempts were being made to establish a distinction between the two disorders. In common with other commentators, Quévy (1848) pointed out other disorders to which hysteria seemed to be related - eclampsy, catalepsy, angina, convulsions in asthma, nymphomania and the male equivalent of hysteria, hypochondria. He averred that hysteria had its analogues in self abuse ("manie aiguë"), nicotine and other poisonings, hydrophobia, ergotism and the convulsions witnessed in cases of meningitis. With specific regard to the relationship between hysteria and epilepsy, Quévy cites Georget's proposal that hysteria was but an advanced form of epilepsy, and that the transformation of one into the other supported this proposal. Nevertheless, Quévy set out the table of eighteen differential criteria proposed by H. Landouzy (a doctor known to Charcot) in his "Mémoire" (sic) of 1846, and claims that they constitute "une distinction radicale entre l'hystérie and l'épilepsie". Some of these criteria were based on the assumption of the genital nature of the origin of hysteria, and the recommendation for sexual activity is made in cases of hysteria, while this is felt more likely to be harmful in cases of epilepsy. Three years before Quévy's study,

Landouzy had won, jointly with Brachet, the prize awarded for the best explanations of the nature and origins of hysteria - a formal award given by the Académie de Médecine. Charcot must have been familiar with these proposed criteria, but did not subscribe to them all: at a professional level he discouraged recourse to sexual explanations of hysteria and references to the womb, replacing this by siting the ovaries as an hysterogenic zone. He would have rejected some of the explanatory and descriptive phenomena associated with earlier conceptions, and those which he would have deemed non-scientific. Charcot would also have known the differential criteria set out by Delasiauve (1854) and Briquet (1859)4.

In order to establish the distinctive nature of hysteria Charcot proposed his own differential criteria, and these were as follows: Firstly, and the most important was that ovarian compression could relieve symptoms in cases of hysteria, but not of epilepsy. Secondly, that during an attack the temperature of epileptics rose above those of hysterics which did not exceed 38 degrees; thirdly, while potassium bromide worked for epileptics, it did not for hysterics; more seriously, it was claimed that the prognosis for hysteria was less severe than that for epileptics, and that epileptics had mental disturbances which in some cases eventually led to insanity. This criterion is in line with Quévy. Finally, practitioners viewed recurring epileptic or hysteric attacks as "un état épileptique" and "un état hystérique", that is, pathological states which in the case of the former led to death, but not in the latter. Féré, (1892) in his description of epilepsy, threw some doubt upon the efficacy of ovarian compression to relieve or arrest the hysterical attack. However, Charcot thought this method of sufficient importance to warrant a move from the manual method of application to the use of technical equipment, designed and used at la Salpêtrière.

Among the lectures on various disorders of the nervous system, particularly of the elderly, Charcot gave lectures on cortical epilepsy; and his fame has come to rest on the disorders such as rheumoid arthritis, ataxia etc, but not on epilepsy. When he was given charge of the epileptic section, his preference seems to have been to identify the hysterics. In Gasser's table of Charcot's publications on neurological topics there are one hundred and sixteen on hysteria and eighteen on epilepsy<sup>5</sup>. This preference is generally seen as a deliberate choice: Charcot seized upon the opportunity to establish hysteria as a disease entity distinct from other forms of pathology. But to my knowledge, the question has not been raised as to why Charcot seemed to neglect, relatively speaking, the disorders of epilepsy, given that he had a ready made epileptic population to hand. Goldstein (1982, 1987) has put forward the positive political and expansionist motivations for the study of hysteria, but

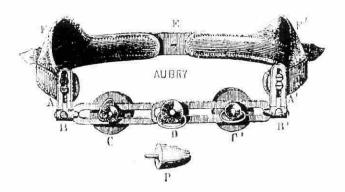


Fig. 2. Ovarian compressor used during Charcot's tenure as director at the Salpêtrière.

<sup>4</sup> E. Trillat, 1986, pp. 159-160.

<sup>&</sup>lt;sup>5</sup> reproduced in Goetz et al., 1995, p. 100.

the negative motivation, i.e., his apparent neglect of epilepsy does not seem to have been addressed. We may speculate upon the reasons; Charcot may not have fully endorsed that aspect of the hereditarian view which put epilepsy in the forefront of neurological disorders; or while endorsing it did not wish to explore its implications. Both medical and lay views of epilepsy were made in negative terms, and its outward symptoms seen as grotesque and alarming. The symptoms or displays of hysteria, while resembling those of epilepsy in some respects, also offered the spectators (Charcot and his audiences) a more fascinating spectacle. These were to be found particularly in the "attitudes passionnelles", and in the evidence of some logical unfolding of symptoms, and some sort of intentional aspect behind the visual phenomena, or as Gowers described "muscular spasms so grouped as to resemble that which may be produced by the will"(1881, 1964, p. 1).

#### CHARCOT AND GOWERS

A comparison between Charcot's and Gowers' approach to diagnosis is instructive to historians for it shows that, in the confusion that reigned, there was an alternative approach to diagnosis. In 1870, Gowers was appointed as medical consultant at the National Hospital for the Paralyzed and Epileptic in London, housing a patient population which bore some similarities to Charcot's section of epileptics. Out of one thousand cases which he studied he found that 815 of these were purely epileptic and 185 hysteroid (1881, 1964)6. He admitted that it was not easy to distinguish these severe hysterical attacks or convulsions from simple epilepsy, and further proposed that many hysteroid fits were really postepileptic phenomena. He also proposed that the repetition of the pseudo-epileptic stage of hysteria must be regarded as being in part epileptic, though the attacks were in the early instances purely hysteroid. He also claimed that, in severe hysteroid fits, the initial stage "which so closely resembles an epileptic fit, must be due to a discharge having the same seat as in true epilepsy, although probably differing in its pathological causation." He also suggested that the "spasm of hysteroid type should constitute the convulsion of a true epileptic fit" (p. 146), thus reversing the direction of the type of inference that Charcot made. In essence Gowers' diagnostic judgements seem to fall more in favour of, or biased towards, an explanation in terms of epilepsy - in contrast to Charcot's views. Gowers ascribed the association of epileptic and hysteroid convulsions to a special state of the nervous system which leads from epilepsy to hysteria, and thus those patients who have hysteroid attacks after an epileptic attack are subject to both disorders; but the emphasis is on epilepsy where hysteria is perceived as being essentially postepileptic (expressed in the sequelae).

In retrospect, Gower's position seems to have been vindicated, for as Micale (1993, pp 506-507) points out, Gowers' interpretation was increasingly adopted in Germany, France and elsewhere. It was also supported by Hughlings Jackson's "On Epilepsies and on the After-Effects of Epileptic Discharges" (1876, 1958). Gowers also allowed that hysteria might be a conjoined morbid state, and he suggested that there were some rare cases in which attacks were intermediate between the two, as proposed by Trousseau. On the whole, Gowers opted for the view of a serial combination of processes underlying hysteria and epilepsy. The implications for diagnosis were as follows: "No doubt most of these cases (convulsions) may be placed, approximately, in one or the other group; but they show that the two forms are not separated by any fixed and impassable symptomatic boundary" (1964 p. 148). This last statement reveals a contrast to Charcot's approach which was less tolerant of ambiguity, more rigid in its commitment to construct a category in which epilepsy is annexed by, and subordinated to hysteria in order to fulfil the requirements of the type, the classical case of hysteria. Moreover, Charcot seemed to take personal pleasure in being able to contest a previous diagnosis and replace it by hysteria<sup>7</sup>.

<sup>&</sup>lt;sup>6</sup> Gowers preferred to use the term "hysteroid".

<sup>&</sup>lt;sup>7</sup> In Freud, 1962, p. 22.

## LINGUISTIC ANALYSIS

Charcot's awareness of the superiority of hysteria over epilepsy in iconographic terms partly explains his relative neglect of epilepsy in favour of hysteria; and this was more specially the case when he used hypnotism as an experimental technique to study hysteria, Freud (1962) described Charcot the "visuel", the man who sees; it is possible that this preference for the visual elements of hysteria, in demonstrations, drawings and photographs led Charcot to overlook, to some extent, the problems involved in verbal description. The terms "imitate" and "mimicry" describing symptoms associated with hysteria are ambiguous in medical description. It has already been noted that Charcot used the term "imitate" to describe some aspects of convulsive phenomena, which seemed to reproduce symptoms of partial epilepsy - that is, Jacksonian or temporal lobe epilepsy. In this case, were the alleged mimetic attributes of hysteria nothing more than appearances? And were these symptoms simply the function of the malleability of hysteria which Charcot was able to demonstrate through the procedures of hypnotism? The term "mimicry" generally referred to the protean nature of the disorder. The problems of diagnostic description run deep, and we may also ask whether the metaphorical language represents simply a way of describing the observed behaviour or whether, more seriously, it points to a single underlying disorder. In terms of degeneracy theory, the terms "imitate", "parallel" and "reproduce" have more value than simple verbal devices: they are testimony to the underlying relationship and similarity between disorders, and in particular the neurological ones. In spite of this relationship, Charcot was determined to make hysteria an entity in itself by presenting a clear descriptive account of its symptoms. However, the construction of a new "disease entity" still entailed the use of existing terminology, and I suggest that he could not exclude the use of the terms of epilepsy for various reasons.

As we have seen, Richer entitled the description of the hysterical attack "Hystéro-épilepsie ou La Grande Hystérie". These titles are thus

set out as alternatives, but they do not appear synonymous. The first suggests a composite or mixed disorder, and the second the grand or fullblown version. Charcot was not happy with such terminology and came to prefer the second title, which is not surprising, for the title "hystéroépilepsie" suggests that epilepsy (the noun) is the substance, while, in fact, Charcot intended the inverse, in order to present an unambiguous account of hysteria; but he continued to use the terms available. The first stage of the grand attack was preceded by prodromes and was identified by an "accès épileptoide". Charcot also identified the first stage itself as a "période épileptoide" by describing the tonic symptoms, the spasms and the protrusion of the tongue etc. He described the manifestations of tetanus (or tonic immobility) as falling within the "période épileptique". It is not clear whether Charcot was using the two terms epileptic and epileptoid to denote different meanings to show that tonic immobility was epileptic-like while tetanism (still defined as tonic immobility) was epileptic proper, including as it did the sweeping movements of the limbs. It might be supposed that Charcot was using the terms interchangeably, although one denotes a likeness only. As well as epileptoid, the term epileptiform was also used by Charcot and others. With reference to linguistic analysis which identifies "meaning variance", "epileptoid" represents an extension of the meaning of epileptic to embrace a wider category of behaviour or interpretation of it. In this case, the use of the term "epileptoid" serves to blend interpretations of symptoms so that they fall within this new category of hysteria. But given Charcot's preference for the single term "hystérie" (to denote an entity), we may wonder why he used references to epilepsy.

Charcot provided an answer to this query, for he told Gilles de la Tourette that it was a "last respect" to a nomenclature used at the Salpêtrière hospital. Charcot could not ignore traditional views and representations and, as Lellouch points out, there was a tension in Charcot's approach between the traditional and the scientific, as in the introduction of technical innovations. Such a tension appears here, for in practical terms, the language of epilepsy was the

most convenient for describing at least some of the manifestations of hysteria. Apart from convenience, Charcot also seems to have objected to terminology used outside France where "epileptoid behaviour is still called epilepsy. I disagree with such terminology and distinctly call this hystero-epilepsy or hysteria major." In the meantime this may partly explain his use of "hystero-épilepsie" – better this than admit to a diagnosis of epilepsy!

## DEBT TO EPILEPSY

The debt to epilepsy can be defined and identified in its various aspects: in the verbal descriptions we have seen how Charcot phased out the term epilepsy; conceptually, epilepsy served as a model for hysteria, for we might assume that Charcot took the notion of stages from the way in which epileptic seizure was seen and described in its unfolding, from its onset to its resolution: Charcot's model is based on the identification of parallels between the two disorders in which spatial relations are equated with the semantics of medical description, suggesting the relationship between epilepsy and hysteria. Probably following the examples of Brown-Séquard's proposals of the "aura epileptica". epileptogenic zones and the use of ligatures to arrest epilepsy at its first stage (1860), Charcot established the equivalents in the hysterical attack, and in hysterical patients compression was applied on the area of the ovaries. In addition, just as a "status epilepticus" could develop as a consequence of many attacks over time, so was a "status hystericus" also identified on the same grounds. We may also note that the tonic and clonic phenomena in the epileptic seizure were given their analogies (epileptoid) or parallels in hysteria, and then came to be incorporated into this grand attack and claimed to be "vraie hystérie" (true hysteria), to be distinguished from "hystérie vulgaire" (ordinary hysteria). These "parallels", then, were the logical forms of the analogies which Charcot identified.

Furthermore, at a clinical level, Marey's myographic recordings revealed that the three classic stages of epilepsy underlay the attack of hystero-epilepsy with mixed crises ("crises combinées).9

At the practical level we can see the debt Charcot owed to the physical presence of the epileptic patients. The differing and similar aspects of the behaviours of this mixed section encouraged, no doubt, mutual influences since the epileptics and the hysterics were together in the same wards, refectories and grounds of La Salpêtrière. The nature and dominant direction of the influences cannot be known for certain but according to Massey and McHenry (1986, p. 65), many of the hysterical women became attached to Charcot and, through constant association with the epileptics, began to mimic convulsions of major epilepsy. Moreover, if one of the intrinsic features of the hysterical disorder were the capacity to imitate, then an epileptic-like period within the hysteric attack could be accounted for by this capacity and thus support the claim that this stage was in fact intrinsically hysterical. On the other hand, if the epileptic patients had an "hysteric personality" or were excessively emotional or excitable, they might have imitated, either consciously or unconsciously, some of the symptoms of the grand attack. Such a supposition is supported by Charcot's comment on the case history of a young female epileptic patient (unnamed). He averred that the progress of this patient "would certainly have been much faster in the ward which she occupies, if she had not been in constant intercourse with subjects of hysteria major in whom she saw the attacks daily" (1882-1885, p 215). Did Charcot imply that epileptic patients were exaggerating their symptoms and incorporating hysteric elements into their attacks? If that were the case, then the number of epileptics within the section could have been underestimated, and some of the so-called hysterics belonged more properly to the epileptic category. It is also probable that epileptics took on some of the symptoms of hysteria in the light of Gowers'

<sup>&</sup>lt;sup>3</sup> In Gilles de la Tourette, 1893, p. 245.

<sup>&</sup>lt;sup>9</sup> E. Trillat, 1986.

observation of the semi-intentional aspect of some of the "attitudes passionnelles". Finally, the case of Blanche Wittmann throws light on the possible diagnostic fate of some of the epileptic patients. According to Signoret (1983) she was originally diagnosed as "épileptique simple" in 1877, but she became the clinical prototype for "grande hystérie".

In retrospect we can safely propose extensive interactions a century ago between these two types of patients with regard to mimicry. But in this context there are numerous dimensions to imitation: Who imitated whom? Was the imitation reciprocal? Does imitation produce something analogous to the original, or is the new behavioral phenomenon similar in appearance only? In either or both cases, are the similar phenomena produced by virtue of a shared pathology? And what is the role of consciousness in the mimetic acts? Was the propensity to imitate so inherent in the hysteric that it operated at an unconscious level? If imitation were conscious or deliberate, as Axel Munthe suggested (1939), or as Charcot himself admitted, 10 then the similarity between the symptoms might well have deceived the practitioner. Viewed in this light, the question of the proximity of the epileptics and their interaction and relationship with the hysterics bears directly on the process of diagnosis.

Charcot explained an intuition that enabled him to distinguish hysteria: "For many years I walked through my wards like a blind man, never seeing hysteria, not because it was not there, after all it is common, but because I did not know how to look at things." But seeing and observing are not objective activities; they are subjective and selective. Perhaps Charcot was helped in distinguishing hysteric patients by the ribbons and flowers they attached to their medical charts, in their self-advertisements and wish to be seen as hysterics – a more colourful and attention-attracting disorder than epilepsy. These actions on the part of the hysterics were described by Bourneville and Régnard at the

time (1877). Another way of viewing Charcot's construction of hysteria is to attribute it to scientific failure: as Thornton (1976) suggests, "Failure to recognize the convulsion of temporal lobe epilepsy over four thousand years led, among other false trails, to the strange concept of 'hysteria', allegedly a mental condition causing the patient to imitate convulsions and other neurological signs and symptoms' (p. 115).

## CONCLUSION

Jan Goldstein's has influentially proposed the thesis that Charcot's interest in hysteria in the late nineteenth century was a political and expansionist move to incorporate the "intermediary zone" of the neuroses into French psychiatry. She supports her claim with references to the political persona of Charcot and to his friendships with political figures like Gambetta. Her interpretation of Charcot's successful ambition may be misleading, however, for she writes as if Charcot were a psychiatrist, which he was not. He was, foremostly a neurologist who specialised in the pathologies of the nervous system. Moreover, Charcot's assertion that neuropathology and psychiatry were unified and "should, philosophically speaking remain associated with each other by insoluble ties" (1880, p. 2) does not necessarily denote an incursion into the study of the neuroses, but rather a plea for the rapprochement of neurology and psychiatry, based on a conceptualization of the relationship between the two specializations. In the nineteenth century, the relationship between the two domains of practice was evolving and variable12 and in Germany, for example, the two specializations were not distinct. Moreover, in France the unity of psychiatry and neuropathology was confirmed by Féré (1884) as a nosological question in that he stated that the "family" of inheritable neuroses included neuropathological phenomena such as goitre, chorea, Parkinson's disease, migraine and asthma. Yet Goldstein's emphasis on the political construc-

<sup>10</sup> In S. Gilman, 1993, p. 370.

<sup>11</sup> Cited in C Goetz, 1987, p. 43.

<sup>12</sup> In C. Goetz et al., 1995, pp. 208-213.

tion of hysteria need not preclude an account which looks at the physical conditions of patients, the state of medical knowledge and diagnostic theory and practice. A political interpretation on its own is in danger of overlooking the means by which an object is achieved. The account above should be seen as a necessary complement to the political thesis.

My analysis of Charcot's diagnosis of hysteria is part of a wider, ongoing story in the domain of medical and psychiatric practice of diagnosis. When there are multiple symptoms, the task of the medical practitioner or psychiatrist is to identify patterns or regularities in their occurrence so as to present a valid description that would lead to the naming of a syndrome or disease entity. Mary Boyle (1990) has emphasised the problems involved in this process. Part of the difficulty lies in the determination of a shared cause and deciding which symptom or symptoms play a pivotal role in the construction of a syndrome or entity. In the case of hysteria and epilepsy, the attack, the common denominator of both, contributed to the confusion. Some of the pressure to give a name or a label to symptoms originates from the patient. In Charcot's case, the motive seems to have originated from Charcot himself, in the interests of nosology, but the kind of celebratory status afforded to some of the hysterics at la Salpêtrière no doubt made them pleased to have such a label.

Today, a sceptical view and critical eye are often cast on the processes of naming syndromes and diseases. I have attempted to demonstrate hat examples from the history of medicine and osychiatry may throw light on this issue. Perhaps the foregoing account of Charcot's construction of "grande hystérie" will contribute, n a small way, to our understanding of this aspect of modern medical science and practice.

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