

The Duels of Pierre Marie and Jules Dejerine

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Abstract

In no country has the duel prevailed to such a great extent as in France where the matter of dueling and affairs of honor were of frequent occurrence until the 20th century. The term duel has since been established for any contest between 2 persons or parties, be they sporting, intellectual, political, or in other matters. Despite their worldwide recognition and great scientific production, Pierre Marie and Jules Dejerine became rivals at the end of the 19th century. While Marie defended Charcot's neurological school at Salpêtrière Hospital, Dejerine had his own neurology school to contend. The fierce antagonism between them materialized to the verge of a real death duel in 1892 and later to an intellectual duel in the famous debate about aphasias, held in Paris in 1908.

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Introduction

A French honest man in the *Belle Époque* could be defined as he who refrained from stealing, did not insult his fellow man, spilled blood only in the duel or in war, and completed all of the duties of his profession. In no country has the duel prevailed to such a great extent as in France, and although feminist women hinted with their male contemporaries' obsession for dueling, this informal model for public conduct was an entrenched part of masculine honor culture [1]. The duel as a judicial appeal was in vogue in France as far as 1386, and during the first 18 years of the reign of Henri IV, no less than 4,000 gentlemen are said to have perished before the monarch endeavored to put an end to the barbarous custom. Nevertheless, France maintained its "bad eminence" in this matter as such affairs of honor were of frequent occurrence until the 20th century [2]. Since then, the term duel has been used for any contest between 2 persons or parties, be they sporting, intellectual, political, or in other matters.

In the late 19th and early 20th centuries, 2 prominent neurologists, Pierre Marie, one of Professor Jean-Martin Charcot's most devoted disciples, and Jules Dejerine,

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Fig. 1 Pierre Marie (1853–1940). Personal collection (Walusinsk O.).

Fig. 2 Jules Dejerine (1849–1917). (Taken from Google images [em.wikipedia.org], March 2020).

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a disciple of Felix Alfred Vulpian, one of Charcot's closest friends, made pivotal contributions to the development of the field [3, 4]. At that time, the French School of Neurology was recognized worldwide as one of the most influential in the world, while Hospital de la Salpêtrière in Paris was considered the Mecca of neurology [3]. After Charcot's death in 1893, Pierre Marie and Jules Dejerine, already notorious enemies, were involved in several episodes of intense confrontation, 2 of which became famous [3–6]. An intellectual duel, later known as the Paris "aphasia debate," which took place in 1908, and another, which almost materialized in a real death duel, occurred in 1893 [3–7]. The purpose of this review was to bring to light these remarkable episodes in the history.

Pierre Marie versus Jules Dejerine: A Brief Background

Pierre Marie was born in Paris, France, in 1853 and died in 1940, at the age of 86 years, in his estate near Cannes, France (Fig. 1). Marie made extraordinary contributions to the field, with landmark descriptions of neuropathological entities, including hereditary motor and sensitive neuropathy known as Charcot-Marie-Tooth disease; hereditary degenerative forms of cerebellar ataxia, known as Marie's ataxia; as well as studies in the

area of hysteria [3, 5, 8, 9]. Other important contributions by Marie were made in the field of internal medicine, with the pioneering descriptions of acromegaly, Basedow-Graves' disease, and paraneoplastic hypertrophic osteoatrophy, in addition to ankylosing spondylitis [3, 5, 8, 9]. Jules Joseph Dejerine was born in 1849, in Geneva, Switzerland, to French parents and died in Paris in 1917 at age of 67 years (Fig. 2) [3, 5]. Like Marie, Dejerine had a prolific academic career in the field of neurology, with breakthrough publications that explored the localization of brain function, delving into the area of neuroanatomy and semiology of disorders of the nervous system. He contributed in the description of several diseases of the peripheral nervous system and myopathies, such as Landouzy-Dejerine muscular dystrophy, and a form of peripheral neuropathy, known as Dejerine-Sottas, in addition to diseases of the central nervous system, such as olivopontocerebellar atrophy (Dejerine-Thomas syndrome) and Dejerine-Roussy thalamic syndrome. Dejerine's greatest contributions were 2 striking books *Anatomie des centres nerveux* and *Sémiologie des affections du système nerveux* [3, 5]. As a result of his outstanding scientific production, Dejerine grew into a strong intellectual force outside the school of Salpêtrière and, as such, a rival and eventually an enemy of the school of Charcot [3, 5].

Pierre Marie and Jules Dejerine had several strong antagonistic scientific confrontations, aggravated after



Fig. 3 Jules Dejerine and his wife Augusta Marie Klumpke. Personal collection (Walusinsk O.).

Charcot's death in the fierce competition for his succession for the *Chaire de Clinique des Maladies du Système Nerveux* at Salpêtrière. However, after an interim under Brissaud's leadership, Fulgence Raymond was chosen as Charcot's successor [3, 5]. After Raymond's death in 1910, a new public competition was instituted, and Dejerine was named to the position, to Marie's detriment. Marie would only be head of *Chaire de Clinique des Maladies du Système Nerveux*, after Dejerine's death in 1917 [3–7]. Then, Pierre Marie gave Dr. Augusta Marie Klumpke (Fig. 3), Dejerine's wife and faithful collaborator, 15 days to leave Salpêtrière with all her pieces and documents. Dejerine and Augusta's union was a most intimate collaboration between 2 emancipated modern scientists, which was marked by enthusiastic and unpretentious all-day hard work, described by Jules Dejerine as “amour cérébral” [10–13]. Meanwhile, the bitter rivalry between Marie and Dejerine often culminated in mutual verbal assaults and 2 duels that will be described in detail in the next sections of this review [5, 7, 10].

A Duel of Death

The rivalry between Pierre Marie and Jules Dejerine was further heated up in 1892 with publications by both in different areas of neuropathology and clinical neurology, always exposing signs of clear antagonism between the protagonists, often with great verbal aggressiveness, ironies, and sarcasm from both parties, more fiercely so on the part of Pierre Marie [5, 7, 14–16]. A critical point in this clash of academic titans occurred after a publication on sensory ataxia by Pierre Marie [14] faced acid criticism in another article by Dejerine [15].

[...] By boasting of having for the first time exposed (in 1889–1890) the theory according to which lesions of the tabs are nothing other than the prolongation in the posterior cords of the lesion of the corresponding roots, “Mr. Dejerine” therefore attributes a merit that does not belong to it. [...] [14, 16]

Dejerine then sent emissaries to Marie's house and summoned him for retraction, or else for a death duel, with choice of location and date. Marie's response was evasive, however, stating that Dejerine's scientific integrity had never been questioned [6, 16]. As tradition established, 2 witnesses were chosen on each side for the duel, with Maurice Letulle and Eugene Gley alongside Dejerine, and Édouard Brissaud and Anatole Chauffard alongside Pierre Marie [16].

The witnesses (seconds) worked quickly to appease the spirits of the 2 candidates and thus managed to avoid the potentially fateful duel [12]. Pierre Marie, on December 30, 1892, asked Brissaud and Chauffard to send a letter to Letulle and Gley.

[...] Mr. Dejerine having been offended by a recent article from Mr. Marie, we accepted the mandate to give Mr. Dejerine all satisfaction legitimate. So, we told you, at name of Mr. Marie, that neither the good repute personal, nor the scientific good faith of Mr Dejerine was not involved. [...] We would not, at any cost, set a precedent which, in scientific disputes, we would appear to us personally inadmissible. [...] [16, 17]

And the next day, Gley and Letulle wrote to Marie:

[...] About the article by Mr. Pierre Marie [...] we instructed to ask the author to either withdrawal from certain passages in this article which you seemed to question your honor and your scientific good faith, be a reparation by arms. Mr. Marie introduced us to 2 of his friends, MM. Brissaud and Chauffard who, [...] wrote a letter to us. The loyal explanations that it contains gives him, in our opinion, full satisfaction. [...] [16, 17]

It should be noted that in 1886, Dejerine was involved in another duel, this time with a fellow obstetrician, Dr. Vaucher [16]. The fact was published in the *Gazette de Lausanne* on 26 June; however, the duel did not occur. Transcribing Professor Poirier's words, “These 2 true-false duels bear witness to an often-overlooked facet of Dejerine's personality: he was very sensitive and wholehearted!” [16].

Paris Aphasia Duel

The study of aphasias has always been the subject of great debate, with the classic works of Paul Broca emphasizing the role of the third lower frontal circumvolution of the left frontal lobe, in motor aphasia, and Carl Wernicke

underscoring the role of the temporal lobe in the gyrus superior, posterior temporal, dominant hemisphere, and sensitive aphasia, among others [10, 18–20]. Pierre Marie and Joseph Dejerine had opposing views regarding concepts of aphasias [5, 10, 13–15, 21–24]. The studies of Marie, who in the early stages of his medical career was Broca's disciple, led him to head-on collision with these classic concepts of Broca and Wernicke, denying the role of the third left frontal convolution in the language, defending a more holistic view, while Dejerine, on the other hand, supported a localizationist view of aphasias, in support of Broca's theory. Therefore, Dejerine advocated a classical and systematic view of aphasia, whereas Pierre Marie claimed that there was only 1 type of aphasia (Wernicke's aphasia) and believed that (Broca's aphasia) was nothing more than an aphasia Wernicke added to anarthria. The Aphasiology Congress held in 1908 in Paris, organized by *Société de Neurologie de Paris*, was in essence a dispute about the neuroanatomical location of language and the probable location of the cerebral lesions that cause aphasia [5, 6, 10, 16, 23, 24]. On July 9, 1908, in front of an audience of selected neuroscientists, including André-Thomas, Joseph Babinski, Gustave Roussy, and Georges Guillain, a debate unfolded, which became known historically as "Paris aphasia debate" [5–7, 10, 16]. This debate had 3 sessions, with its minutes published in the *Revue Neurologique*. The acclaimed dispute, attended by several assistants, on both sides, generated great interest and international support, despite ending with no actual winner. However, from the view point of eminent researchers, Dr. Augusta Marie Klumpke (Fig. 3) was the biggest defender due to her brilliant interventions during the debate [5–7, 10–13, 16]. Dr. Klumpke argued that Marie's assumptions were wrong using brain preparations and was able to show that the *pars opercularis* and *triangularis* of F3 were very well located within the quadrilateral (lenticular) zone (Marie's quadrilateral zone); however, they were superior to the axial section, which was normally used by Pierre Marie to delineate this zone and try to explain that it was just anarthria. She concluded that Broca's aphasia was not caused by a lesion located within the quadrilateral zone; instead, she claimed that it was located precisely in the superior, anterior, and external portions of the zone. In addition, she proposed that lesioned fibers going to and from Broca's area (*pars opercularis* and *triangularis* of F3) must be considered a cause of Broca's aphasia. According to this, the origin of a neurological deficit in general could not only be situated in the cortex but also in the subcortical region, affecting fibers that originated and terminated in the respective cortical area [16].

Conclusion

Pierre Marie and Jules Dejerine were academic neurologists with large-scale scientific production, recognized worldwide. However, the clash between the school created by Charcot, at the Salpêtrière Hospital, and one created by Dejerine wound up in a harsh hostility between the 2 professors.

Statement of Ethics

We confirm that the approval of an institutional review board was not required for this work. We confirm that we have read the Journal's position on issues involved in ethical publication and affirm that this work is consistent with those guidelines.

Conflict of Interest Statement

There is no conflict of interest to declare.

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References

- 1 Mansker A. [Sex, honor and citizenship in early Third Republic France](#). UK, London: Palgrave Macmillan; 2011. p. 1.
- 2 Mansker A. The code of honor. [Happer's Weekly](#). 1875 Jan 9;XIX(941):35–36.
- 3 Goetz CG, Bonduelle M, Gelfand T. [Charcot. Constructing neurology](#). New York: Oxford University Press; 1995. p. 319–24.
- 4 Kondo GK, Schramm CC, Novaes MRR, Teive HAG. Jules Joseph Dejerine: an outstanding neurologist and Charcot's enemy. [Arq Neuropsiquiatr](#). 2018;76(5):352–4.
- 5 Paciaroni M, Bogousslavsky J. Jules Joseph Déjerine versus Pierre Marie. [Front Neurol Neurosci](#). 2011;29:162–9.
- 6 Brais B. The third left frontal convolution plays no role in language: Pierre Marie and the Paris debate on aphasia (1906–1908). [Neurology](#). 1992;42(3 Pt 1):690–5.

- 7 Castaigne P. Centenaire de la Clinique du Système nerveux de la Salpêtrière. *Rev Neurol.* 1982;138:879–1060.
- 8 Almeida GM, Germiniani FM, Teive HA. The seminal role played by Pierre Marie in neurology and internal medicine. *Arq Neuropsiquiatr.* 2015;73(10):887–9.
- 9 Goetz CG. Pierre Marie: gifted intellect, poor timing and unchecked emotionality. *J Hist Neurosci.* 2003;12(2):154–66.
- 10 Roch Lecours A. [Aphasia: debates]. *Rev Neurol.* 1999;155(10):833–47.
- 11 Krestel H, Bassetti C, Jagella C. Augusta Dejerine-Klumpke (1859–1927): contributions to aphasiology by scientific mobility in the late 19th century. *J Neurolinguist.* 2013;26(5):581–9.
- 12 Fardeau M. *Passion neurologie, Jules et Augusta Dejerine.* Paris: Odile Jacob; 2017. p. 105–27.
- 13 Poirier J. *Augusta Dejerine-Klumpke (1859–1927): pionnière en médecine et féministe exemplaire.* France: Éditions Fiacre, Montceaux-les-Meaux; 2019.
- 14 Marie P. Du rôle joué par les lésions des racines postérieures dans la sclérose médullaire des ataxiques. *Année Psychol.* 1892;16:513–4.
- 15 Dejerine J. Du rôle joué par les lésions des racines postérieures dans la sclérose médullaire des ataxiques. *Semaine Médicale.* 1892;63:502.
- 16 Poirier J. A propos des deux duels du Dr. Dejerine. *Neurologie Libérale.* 2017;4:28–31.
- 17 Dejerine J. Du rôle joué par les lésions des racines postérieures dans la sclérose médullaire des ataxiques. *Progrès Médical.* 1893;17:1–2.
- 18 Leblanc R. A Parisian spring: the debate on language localization at the Imperial Academy of Medicine, Paris, April 4–June 13, 1865. *Neurosurg Focus.* 2019;47(3):E3.
- 19 Broca P. Nouvelle observation d'aphémie produite par une lésion de la troisième circonvolution frontale. *Bull Soc Anthropol.* 1861;6:398–407.
- 20 Wernicke C. *Der aphasische, symptom-en-complex: eine psychologische, studie auf anatomomisher basis.* Breslau: Cohn um Weigert; 1874.
- 21 Marie P. La troisième circonvolution frontale gauche ne joue aucun rôle spécial dans la fonction du langage. *Semaine Médicale.* 1906;26:241–7.
- 22 Javed K, Wroten M. *Neuroanatomy, Wernicke area.* StatPearls [internet]. Treasure Island, FL: StatPearls Publishing; 2020.
- 23 Dejerine J. L'aphasie motrice: as localization et as physiologie pathologique. *Presse Med.* 1906;57:453–7.
- 24 Marie P. L'aphasie de 1861 à 1866: essai de critique historique sur la genèse de la doctrine de Broca. *Semaine Médicale.* 1906;26:565–71.