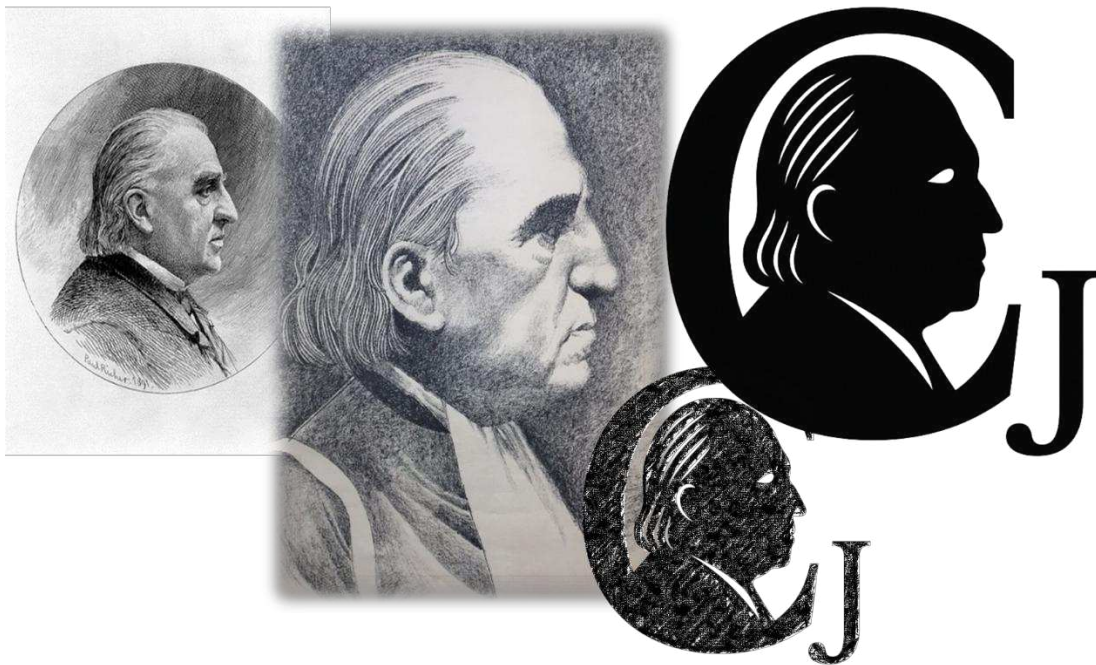


The Charcot Journal

*Interdisciplinary Studies
in the History of Neurology*



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Cover: A profile portrait of Jean-Martin Charcot, drawn by Paul Richer (1849–1933) in 1891 and later interpreted through a lithograph by American illustrator and painter Mark English (1933–2019), evolves into the preliminary sketch for the logo of *The Charcot Journal*—ultimately recreated in digital form. This fusion of techniques and styles, alongside a plurality of interpretations and variations on a theme, breathes life into a dynamic dialogue between past and present. The past shapes the present, and the present revitalizes the past. This is the spirit of *The Charcot Journal*.

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The *Charcot Journal – Interdisciplinary Studies in the History of Neurology* (ISSN 3103-6090) is a peer-reviewed, international, open-access (CC BY-NC-ND 4.0), and fee-free online publication dedicated to the life, work, and legacy of Jean-Martin Charcot (1825–1893), as well as to the broader history of neurology in its most interdisciplinary sense.

While several journals currently explore the history of neuroscience, each tends to reflect specific disciplinary orientations. In contrast, *The Charcot Journal* offers a more integrative and dynamic platform—one that fosters dialogue among historians, neuroscientists, clinicians, and scholars from the humanities and social sciences. It is distinguished by its commitment to interdisciplinary inquiry, the inclusion of underrepresented perspectives, and a focus on the evolving cultural and ethical dimensions of neuroscience.

By encouraging cross-disciplinary engagement, this journal aims to illuminate the historical foundations of neurology through critical contributions that bridge medicine, philosophy, cultural studies, psychology, and the history of science.

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The Eye, the Ear, the Word: Inaugurating *The Charcot Journal*

(Editorial)

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“Notwithstanding the details I have already provided, I am far from having exhausted the subject, and I dare to hope that you will not regret the time yet remaining to be dedicated to its study.”

Jean-Martin Charcot. *Leçons sur les maladies du système nerveux faites à la Salpêtrière*. Volume I, Leçon II. Paris: Delahaye et Lecrosnier, 1877

In an age where the boundaries between disciplines are increasingly porous, and where the past is often overshadowed by the urgency of the present, *The Charcot Journal* emerges with a clear and deliberate purpose. It seeks to reclaim the richness of historical inquiry and interdisciplinary dialogue as essential tools for understanding the evolution of neurology—not merely as a clinical science, but as a cultural, philosophical, and profoundly human endeavor.

Named in honor of Jean-Martin Charcot (1825–1893), in this bicentennial year of his birth, the journal pays tribute to a figure whose influence reached far beyond the clinic. Charcot not only gave modern neurology its structure and language, but—most enduringly—its method. This, arguably his most enduring legacy, continues to shape the field to this day. Yet this journal is not merely commemorative; it is a platform for critical reflection, for revisiting foundational ideas, and for exploring the intersections between medicine and the broader intellectual currents that have shaped it.

While several journals currently examine the history of neuroscience, most reflect specific disciplinary perspectives. In contrast, *The Charcot Journal* offers a more integrative and dynamic platform—one that fosters dialogue among historians, neuroscientists, clinicians, and scholars from the humanities and social sciences. It is distinguished by its commitment to interdisciplinary inquiry, the inclusion of underrepresented perspectives, and a focus on the evolving cultural and ethical dimensions of neuroscience.

The choice of the journal’s title pays tribute to Charcot, following the rare tradition of naming scientific journals after prominent figures in medical history, such as *Virchows Archiv*, *Vesalius*, or *Osleriana*. These examples are few and far between. Indeed, the prevailing trend in modern

medicine has been to move away from eponyms (Koehler et al. 2000). This shift may reflect a certain disregard for the past, or perhaps a conscious effort to move beyond a heroic vision of medicine—one centered on the discoveries and achievements of singular great individuals—toward a more horizontal, collective perspective that emphasizes teamwork and the cultural substratum from which discoveries emerge.

This evolution is both valid and valuable. Yet, it is equally true that certain figures stand out—those who marked a rupture, introduced a new paradigm, or left a lasting influence. These individuals continue to inspire. Naming a journal after Charcot is not only a way to honor such a legacy, but also a reminder that medicine is a science made by and for human beings. The use of an eponym lends a more human dimension to scientific discourse and may even spark curiosity about the lives and contributions of those who shaped the field.

Charcot was a towering and profoundly influential figure, but he was also able to bring together a group of students and disciples from diverse backgrounds and with varied expertise. In doing so, he helped shape a modern vision of medicine and neurology—one that laid the foundations for contemporary neuropathology, neurophysiology, neuropsychology, and neuropsychiatry. It is precisely this interdisciplinary and multidisciplinary approach—one that fosters critical and stimulating dialogue rather than blind, servile obedience to the master's word, however authoritative—that represents the guiding philosophy behind this journal.

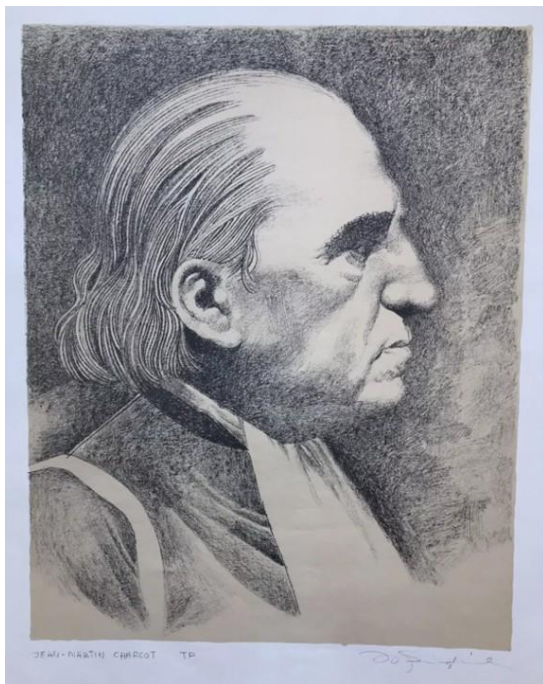


Figure 1. On the left: an original lithograph (trial proof) of Jean-Martin Charcot created by Mark English (1933–2019) (FB, Personal Collection; The artwork by Mark English is reproduced here for scholarly commentary and non-commercial illustrative use. Copyright remains with the rightful owner. No rights claimed.). On the right: the stylized logo of *The Charcot Journal*, derived from this lithograph (Copyright *The Charcot Journal*). Key features—hair, eye, and ear—are highlighted to evoke Charcot's clinical method: experience, observation, and attentive listening.



The journal's logo further reflects this spirit (Figure 1). It is a stylized interpretation of a lithograph I recently acquired from an antiquarian. This particular piece is a trial proof created by the American illustrator and painter Mark English (1933–2019). It portrays Jean-Martin Charcot in profile, distinguished by the white collar of his academic gown. The logo also echoes other historical iconographies, notably the profile portrait created by Paul Richer in 1891 for the frontispiece of Volume I of *Œuvres complètes de J.M. Charcot* (Charcot 1892). Together, these visual references establish a rich and evocative dialogue between past, present, and future.

In the stylized version of the logo, Charcot's black silhouette is highlighted with white accents that emphasize key features. His long, flowing hair—an aspect I've always envied—symbolizes the experience he accumulated over the years. His eye, a tribute to Charcot the *visual*, as Freud famously dubbed him (Freud 1893), evokes his ability to discern order and meaning beneath the seemingly chaotic surface of symptoms. His ear, in turn, represents his attentiveness to the patient's voice, his meticulous and thoughtful clinical interviews, as documented in the famous Tuesday lectures at the Salpêtrière Hospital in Paris (Charcot 1887). Charcot gazes steadily ahead, his eyes turned to the right, following the direction of writing—a reminder of his countless written contributions. It is also an invitation for us to do the same: to contribute to this journal, which must carry forward his legacy. The “J” of Journal does not obstruct his view; rather, it serves as a tool in the pursuit of knowledge—knowledge that, to be genuine, must remain critical, open and free.

It is in this spirit that this journal is launched. Whether its words will vanish like writing on water or endure into the future is impossible to say for now. But I believe it is worth the attempt.

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The Soul Reconsidered: Antonio Fogazzaro (1842–1911) Reads Charcot in *For a New Science*

(Per una nuova Scienza, 1898)

(Commented Documents)

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Abstract

This article examines the overlooked intellectual connection between Italian novelist Antonio Fogazzaro (1842–1911) and French neurologist Jean-Martin Charcot (1825–1893), with particular focus on Fogazzaro's 1898 lecture *Per una nuova Scienza* ("For a New Science"). Charcot—renowned for his groundbreaking work on hysteria and hypnotism—serves in Fogazzaro's thought as both a literal and symbolic gatekeeper between the rigid empiricism of positivist science and the emergence of a spiritually attuned scientific paradigm. Fogazzaro, deeply committed to reconciling science and faith, interprets Charcot's public endorsement of hypnotism as a cultural turning point that legitimized previously marginalized psychic phenomena. Through vivid allegory, he portrays Charcot's acceptance of hypnotism as the opening of the gates of "official science" to a procession of outlawed ideas such as telepathy, spiritualism, and mental suggestion. Engaging with a broad intellectual tradition—from Franz Anton Mesmer to Pierre Janet and Charles Richet—Fogazzaro constructs a learned yet critical narrative of 19th-century scientific and spiritual discourse. He challenges the reductive tendencies of materialist positivism for excluding the soul and advocates for a new science that would integrate Western empirical methods with Eastern metaphysical insights. While cautious of spiritualist excesses, Fogazzaro sees in phenomena like hypnotism evidence of a deeper, irreducible spiritual principle within the human being. Ultimately, he positions himself as a mediator between faith and reason, science and soul—an intellectual poised at the threshold of a new spiritual science.

Keywords: Charcot, Jean-Martin; Fogazzaro, Antonio; Hypnotism; Hysteria; Positivism; Spiritualism

Introduction

Jean-Martin Charcot was a central figure in the late nineteenth century, not only within the realms of science and medicine but across the broader cultural landscape. His lectures at the Salpêtrière Hospital—particularly during the final phase of his career—drew widespread attention from the popular press and were attended not only by physicians but also by individuals from the artistic and literary worlds.

Among these cultural intersections, the relationship between Charcot and novelists stands out as particularly compelling (Koehler 2001; Koehler 2013; Bogousslavsky and Tatu 2025). Though often marked by tension, this relationship was intellectually stimulating and fruitful. Charcot's persona and ideas frequently appeared in literary works and continued to influence literary debates well beyond his death.

One especially interesting and previously overlooked example is the attention given by the Italian writer Antonio Fogazzaro (1842–1911) to Charcot's role in the study of hypnotism and hysteria. This is notably discussed in Fogazzaro's address *Per una nuova Scienza* ("For a New Science") (Fogazzaro 1898; Brigo 2025). It is this aspect of Charcot's legacy that the present article seeks to explore.

Antonio Fogazzaro (1842–1911)

Antonio Fogazzaro (1842–1911) was an Italian novelist, poet, and intellectual born in Vicenza into a devout and liberal Catholic family (Strappini 1997). His father, Mariano Fogazzaro, was actively involved in the Risorgimento and deeply shaped Antonio's moral and political sensibilities. Educated in the classical tradition, Fogazzaro was exposed early to European literature and developed a lasting admiration for authors such as Heine, Chateaubriand, and Victor Hugo.

Although he pursued legal studies at the universities of Padua and Turin—primarily to fulfill his father's expectations—his true vocation was literature. After earning his law degree in 1864, he briefly practiced law before dedicating himself fully to writing. His early works consisted of poetry and occasional verse, but he soon gained national recognition for novels that grappled with the complex interplay between faith, science, and modernity.

Among his most celebrated works are *Malombra* (1881), a gothic novel exploring spiritual and psychological conflict; *Daniele Cortis* (1885), a political and religious drama; and *Piccolo mondo antico* (1895), a semi-autobiographical novel that became a cornerstone of modern Italian literature. Its sequel, *Piccolo mondo moderno* (1901), continued to explore the tensions between religious belief and secular thought.

Fogazzaro's writing is distinguished by its profound spiritual sensibility and its effort to reconcile Catholic doctrine with contemporary scientific and philosophical developments, including Darwinian evolution (Strappini 1997). This intellectual project culminated in *Il Santo* (1905), a controversial novel advocating for spiritual renewal within the Church. The book was placed on the Vatican's Index of Forbidden Books in 1907. Fogazzaro's repeated interventions in the heated debates surrounding Darwinism reflect his broader aim: to challenge the materialist assumptions of positivism and to promote a synthesis between empirical inquiry and moral-spiritual values (Strappini 1997).

Despite ecclesiastical condemnation, Fogazzaro remained a respected public figure. He was appointed senator of the Kingdom of Italy in 1896, became a leading voice in the Liberal Catholic movement, and was nominated multiple times for the Nobel Prize in Literature.

In the final phase of his life, Fogazzaro became increasingly active in public affairs. He held numerous positions in municipal and religious institutions, delivered lectures, commemorative speeches, and public addresses—many of which were later collected in volumes (Strappini 1997). His public engagement mirrored his literary mission: to elevate the spiritual dimension of human life and to advocate for a culture rooted in both reason and faith.

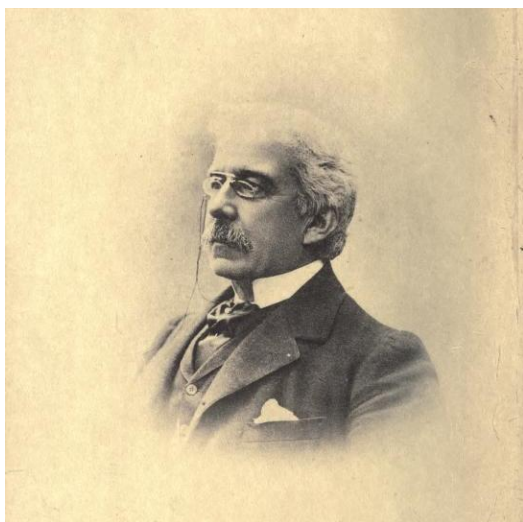


Figure 1. Photograph of Antonio Fogazzaro (1842–1911), photographer and date unknown. Reproduced in: Fogazzaro A. *Le poesie*. Milano: Baldini, 1908.

For a New Science

In January 1895, Fogazzaro delivered two lectures in Rome on “*The Mysteries of the Human Spirit*.” (Molmenti 1899). A few months later, on March 15 and 19, he presented revised versions of these talks under the title “*The Mysteries of the Human Spirit and Science*” at the Accademia Olimpica in Vicenza, of which he was a member (Unknown 1892). The texts of these lectures were later compiled and published in a volume in Milan in 1898, under the title *For a New Science* (*Per una nuova Scienza*) (Fogazzaro 1898).

In this work, Antonio Fogazzaro offered a sweeping reflection on the long-standing divide between official science and the realm of the marvelous—the strange, the psychic, the spiritual—which had been systematically excluded from respectable inquiry (Fogazzaro 1898). Central to this historical transformation was the figure of Charcot, whose endorsement of hypnotism in 1878 signaled not only a scientific shift, but a symbolic breach in the fortress of academic orthodoxy.

Fogazzaro traced this evolution from the late 18th century, when the German physician Franz Anton Mesmer (1734–1815) had introduced his controversial theory of animal magnetism to Parisian society. Mesmer, described by Fogazzaro as “the enchanter—in wig, sword, and violet silk suit, walking with his iron wand in a dimly lit hall among groups of ladies and gentlemen

to the sound of an invisible harmonica,”¹ became the first martyr of this psychic frontier (Fogazzaro 1898). In 1784, Mesmer and his followers were condemned by the Academy of Sciences and the Academy of Medicine in Paris. Fogazzaro emphasized how Mesmer was “excommunicated,” forced into exile, and how those who supported him were compelled to “swear that animal magnetism did not exist and that they would never again utter its name.” (Fogazzaro 1898).

Yet the idea did not die. For fifty years, animal magnetism continued to be practiced quietly, especially in rural areas. In the 19th century, other figures such as James Braid (1795–1860), a Scottish physician, and James Stanley Grimes (1807–1903), an American attorney, phrenologist, and mesmerist attempted to reframe Mesmer’s ideas under more clinical terms—coining hypnotism and electrobiology. These reformulations tried to shed the mystical language that had damned Mesmer’s work. But science remained hostile. The Academy of Medicine famously declared that it would henceforth treat any proposal on animal magnetism “as the Academy of Sciences treats proposals concerning perpetual motion and the squaring of the circle.” (Fogazzaro 1898).

It was not until Jean-Martin Charcot, one of the most prestigious scientists of the time—“member of the Institute, professor at the Faculty of Medicine, physician at the Salpêtrière”—openly embraced hypnotism that the tide began to turn. Fogazzaro highlighted the symbolic weight of the moment: “In 1878, Dr. Charcot [...] dramatically converted to hypnotism, exactly one century after Mesmer’s arrival in Paris.” (Fogazzaro 1898). Though Charcot had no intention of reviving Mesmer’s mystical reputation, his experiments mirrored many of Mesmer’s methods. “Aside from charlatanry and greed,” Fogazzaro observed, “how much of Mesmer is there in Charcot’s methods!” Mesmer had induced altered states by pressing parts of the body; Charcot theorized the existence of “hypnogenic points” that, when stimulated, could trigger catalepsy or sleep (Fogazzaro 1898).

Through experiments on patients like Rosa, a hysterical subject at the Salpêtrière, Charcot demonstrated how applying pressure to the elbow could induce trance, and how magnets could shift symptoms from one side of the body to the other. In the presence of Abbé Méric,² Charcot hypnotized Rosa, caused catalepsy on one side, and watched as Méric brought a magnet near the opposite side. “After two minutes, her right arm and leg relaxed, and the catalepsy passed to the left,” Fogazzaro recounted (Fogazzaro 1898).³ On another occasion, Rosa was hypnotized

¹ Mesmer’s iron wand was a tangible instrument used during his *séances*, believed to channel the mysterious force of animal magnetism. The text also references the glass harmonica, a musical instrument invented by Benjamin Franklin (1706-1790) in 1761. It produces sound by rubbing moistened fingers on a series of rotating glass bowls, each tuned to a different pitch. Known for its ethereal and haunting tone, it was used by Mesmer during his *séances* to create a hypnotic and mystical atmosphere, enhancing the emotional and sensory experience of his audience. It was especially popular in the late 18th and early 19th centuries and used by composers like Mozart and Donizetti.

² Joseph Élie Méric (1838–1905) was a French Catholic priest, theologian, philosopher, and intellectual active in the late 19th century. He held doctorates in theology, philosophy, and letters, and was affiliated with the Sorbonne.

He is best known for his involvement in the study of psychic and spiritual phenomena, particularly through his leadership in the *Académie des sciences psychiques*, which he founded after a dispute with the earlier *Société des Recherches Psychiques*. He directed the journal *La Revue du monde invisible* for ten years, promoting a dialogue between Catholic spirituality and psychical research. Méric’s work reflects a broader late 19th-century interest in reconciling faith, science, and the unexplained, particularly in response to the rise of positivism and secularism. He was particularly active in promoting a spiritualist interpretation of psychic phenomena, often in contrast to the strictly materialist or medicalized views of figures like Charcot. He also published extensively on moral philosophy, atheism, and the role of the clergy in modern society.

³ The text closely follows the account given by Léo Taxil in *Le Diable au XIX siècle* (1892): “Au moyen d’un aimant, on transfère, en deux minutes, d’un côté à l’autre du corps du sujet [Rose], la sensibilité, la contracture et la paralysie.” (“By



and placed behind a screen, while a mute girl sat opposite her. As a magnet was introduced near Rosa, the mute girl began to speak—while Rosa herself became speechless.

These experiments, once unthinkable in scientific circles, were now not only possible but respected—because Charcot had endorsed them. “Charcot did not have to fight,” Fogazzaro remarked (Fogazzaro 1898). “Fortunately for him, by 1878 the old warhorses of the Academy who had fought campaigns in 1825, 1831, and 1837 against animal magnetism were dead.” (Fogazzaro 1898). Thus, he entered science’s inner sanctum unchallenged, his authority shielding hypnotism from ridicule.

In the first section of his lecture, Fogazzaro dramatizes such a profound transformation through a vivid allegory. He portrays official science as a grand 17th-century palace—well-fortified and vigilantly guarded against any resurgence of “those ridiculous superstitions, those absurd theories.” (Fogazzaro 1898). Within this palace, the house prince is none other than Dr. Jean-Martin Charcot.

One evening, Charcot receives an unexpected visitor: a strange figure whom he escorts through the main doors and presents to his astonished colleagues. “Hypnotism,” he announces. Some object, noting that Charcot’s own name appears on the guest’s papers—making him both sponsor and guarantor. Nevertheless, the majority agree to admit hypnotism into the house. But soon, without Charcot’s knowledge and without anyone noticing, the street door remains ajar. Through it slips a masked procession of other long-rejected phenomena: telepathy, clairvoyance, apparitions, psychic forces. The house is thrown into confusion. The admission of hypnotism had changed everything.

This passage is so effective and incisive that it warrants being reproduced in its entirety (Fogazzaro 1898):⁴

I imagine, like Durand (de Gros), official science in 1878 as a grand and ancient building in the style of the 17th century, designed and founded by the glorious masters of the experimental method on a site reclaimed from ridiculous superstitions, absurd theories, and fantastical medieval hypotheses. It was erected, stone by stone, upon firm foundations by successive generations of disciples who made it a splendid construction and took pride in it, believing that, one day, they could reach the heavens with their method, their tools, and their stones. It was both a palace and a fortress, well-fortified and well-guarded at every gate against any possible return attack from those ridiculous superstitions, those absurd theories, those fantastical hypotheses already fought and driven away by the original builders. The splendid halls of the palace are still today adorned with monuments of the most famous pontiffs of the natural sciences, with inscriptions that glorify the omnipotence and consistency of the laws they discovered, exalting human reason and the human senses as the sole sources and instruments of every scientific advance. I see, wandering through this place in 1878, a crowd dressed in black, adorned with many decorations, uniformly grave in appearance, but showing—at least to a careful observer—divergent tendencies in their eyes. There are old men, and not lacking are young men who, to their very core, feel the honor of belonging to the house and are ready to defend its traditions with the most ardent zeal. But there are other young men—and above all, men in the prime of life—who, though housed in a splendid residence, feel a lack of air, a stifling closeness, a heavy atmosphere of the old regime. Nothing in their speech reveals this, but while the first group—conservative in spirit—never approaches

means of a magnet, sensitivity, contracture, and paralysis are transferred, within two minutes, from one side of the subject’s [Rose’s] body to the other.”) (Taxil 1892).

⁴ Translated from Italian by Francesco Brigo. The paragraph structure of the original Italian text has been preserved.

the windows, the others do go to them, and it is likely they see and hear what is happening outside among the laymen.

One evening, the palace's main door opens at the signal of a house prince: Dr. Charcot. A strange figure appears on the threshold. Charcot offers his arm, leads him in, and presents him to the astonished colleagues: "Hypnotism." Immediately the mysterious figure pulls out and offers a document that justifies his entry. The learned examine it. The document is in perfect order; hypnotism is described there with scientific precision. The date of birth is missing, but it matters little—they'll simply write "today." The father's name is missing, but the presenter does not object to inserting "Charcot" in the blank space. Some conservatives wish to point out that the certificate already bears Charcot's signature, that in the end, Charcot is both presenter and certifier, and that he is perhaps asserting his authority a bit too much—but his authority is so great, and he has so many admirers and friends inside, that no one dares protest. The figure is admitted; he is immediately surrounded, touched, examined, interrogated, dragged from group to group, from hall to hall. But what happens now? Without Dr. Charcot's knowledge, without anyone realizing it, the street door has remained open. A swarm of masked misfits—friends and companions of Hypnotism—rushes in noisily. The guards run to intervene, cries ring out from above: "Shut the door!" But the door is hypnotized—it no longer shuts. The bizarre masks climb the stairs shouting, burst into the hall. An enormous confusion ensues. These newcomers bear an alarming resemblance to the monstrous medieval phantoms that once possessed the place. They call themselves Mental Suggestion, Telepathy, Bilocation, Psychic Force, Clairvoyance, Spiritism, Materialization, Apparitions of the Dead, of Ghosts, of the Living. Their appearance in the halls causes a true revolution. Everyone shouts; some want to throw the intruders out the window. But the prevailing faction decides to let them stay—on the condition that they remove their harlequin costumes, dress more decently and soberly, abandon their street-performer habits, change their romantic postures, and scrupulously respect the laws and regulations of the experimental method, submitting to every exam, every interrogation, every possible test. The followers of Hypnotism agree immediately—but this does not restore order to the halls. Though they shed their eccentric garments, they cannot shed their fantastic and unruly nature. Even when being examined, they examine in turn, adopt insolent behavior, sometimes even mock the experimental method. Occasionally, they smash some old worm-eaten and venerable piece of furniture, deliver speeches on physical laws that clash scandalously with the solemn epigraphs on the walls—so much so that they make the hair of the great scientists' statues stand on end. There is even talk of malicious enchantments, and fear arises that the very august edifice of science may, through some occult work of theirs, be in danger.

Fogazzaro also recalls Charcot's role as president of the Society for Physiological Psychology, established in Paris,⁵ where the secretary was Charles Richet (1850–1935)—a future Nobel laureate who investigated mental suggestion and clairvoyance. The society included members such as Hermann von Helmholtz (1821–1894), Cesare Lombroso (1835–1909), and Hippolyte Taine (1828–1893), who joined in exploring the boundaries of the paranormal.

In the remainder of his address, Fogazzaro no longer mentions Charcot (1825–1893) directly but turns to a critical analysis of the role played by some of the century's most prominent scientists in the study of hypnotism and its extensions. Alongside the Parisian society, he references the Society for Psychical Research in London, which he praises for its seriousness. This British society counted among its members notable figures such as Alfred Russel Wallace

⁵ *Société de Psychologie Physilogique*, founded in Paris in 1885. The first French institution devoted to both psychology and parapsychology, was modeled after the Society for Psychical Research in London (1882) and played a pioneering role in early psychological science in France.



(1823–1913), Darwin’s co-theorist of evolution, and William Gladstone (1809–1898), the former Prime Minister of Britain.

Yet, as Fogazzaro notes, the scientific world remained deeply divided. For example, the psychologist Wilhelm Wundt (1832–1920) mocked the dualistic implications of these studies, declaring with sarcasm: “I ask myself whether we must admit that the only world apparently real around us is, in fact, composed of two vastly different worlds: one being the universe of Copernicus, Galileo, Newton, Leibniz, and Kant—governed by immutable and eternal laws; the other, a lesser world of goblins, spirits, witches, and mediums—capable, for the benefit of hysterical people, of turning all the laws of the greater world upside down.” (Fogazzaro 1898).

Other important researchers discussed by Fogazzaro include Pierre Janet (1859–1947) and his study of the patient Léonie, a woman who appeared to exhibit a split personality.⁶ Similarly, Eugène Azam (1822–1899) and his case of Felida pointed to the phenomenon of dual consciousness.⁷ Fogazzaro notes that some theorists—such as Joseph-Pierre Durand de Gros (1826–1900)—even speculated that each individual harbored multiple subconscious selves, forming a kind of “colony” of spirits.

Fogazzaro firmly rejected these theories of psychic fragmentation. While he acknowledged the mysterious power of habit and automatism, he insisted on the indivisibility of the human soul. “There is no plurality of persons in the same human individual,” he affirmed. He recounted an experiment by Janet in which a hypnotized subject, Lucia, responded with the name “Adriana” as an invented secondary personality. But Fogazzaro argued that Janet had projected his own expectations onto the subject: “It seems evident to me that in this experiment he deceived himself, became the victim of a double suggestion—he suggested to the hysterical subject, and he suggested to himself.” (Fogazzaro 1898).

Even experiments in telepathy—such as those conducted by Julian Ochorowicz (1850–1917),⁸ who mentally commanded hypnotized patients to move or speak—were approached with caution. Yet Fogazzaro believed that, taken together, these studies pointed toward a new understanding of human nature. If mental action at a distance were possible, if thought could cause wounds or visions, if people could appear to others at the moment of death, then materialism was no longer sufficient. These phenomena, he argued, pointed to the existence of a spiritual principle within the human being—something irreducible to matter.

To support this vision, Fogazzaro turned to Eastern traditions, praising the Indian philosophical method for its approach to the study of the soul. In this context, he cited a Brahmin mathematician who, at a Theosophical Congress in Chicago, lamented the spread of Western materialist science in India while welcoming the West’s renewed interest in the spiritual:

“He joyfully welcomed [...] a curious movement of sympathy growing in America and Europe, where certain mystical spirits turn toward India—great, declining, venerable ancestress of our

⁶ Janet P. *L’automatisme psychologique: Essai de psychologie expérimentale sur les formes inférieures de l’activité humaine*. Paris: Félix Alcan; 1889.

⁷ Azam E. *Hypnotisme, double conscience et altérations de la personnalité: le cas Félida X*. Preface by J.-M. Charcot. Paris: J.-B. Baillière et Fils; 1887

⁸ Julian Ochorowicz (1850–1917) was a Polish philosopher, psychologist, and inventor active in the late 19th and early 20th centuries. A key figure in Polish Positivism, he championed empirical science and rational inquiry. He studied under Wilhelm Wundt and became a pioneer in hypnosis, telepathy, and altered states of consciousness. Though skeptical of spiritualism, he conducted extensive research on mediums like Eusapia Palladino, proposing scientific explanations for paranormal phenomena. See: Ziolkowska AM. The 100th anniversary of the death of Julian Ochorowicz (1850–1917). *Hist Psychol*. 2018;21(1):74–78.



peoples and our languages—to learn from her the science of the human soul, and above all, the method of studying it.” (Fogazzaro 1898).⁹

Fogazzaro concluded with a call to action: the founding of a new science—one that would unite the rigorous observation of the West with the moral and mystical preparation of the East. This science would not seek sensationalism, but truth. “Go forward,” he urged, “in the calm and rigorous study of occult psychic phenomena. There is a science to be founded here: the science of your instinct, your love, your faith,” with the ultimate mission “to exalt the spirit, to expand at dizzying speed the dominion of intelligence over matter, and to transform society through love.” (Fogazzaro 1898).

And in Charcot’s bold gesture—the scientific rehabilitation of hypnotism—Fogazzaro saw not the conclusion of a debate, but the beginning of a revolution: one that might ultimately lead to the experimental confirmation of the soul, and to the reintegration of the spiritual within the scientific worldview.

Critical Discussion and Contextualization

In his later years, Fogazzaro’s thought became increasingly focused on the need for a spiritual renewal of culture and science. This vision was most clearly articulated in his public addresses and essays, where he called for a reconciliation between the empirical rigor of Western science and the introspective, metaphysical traditions of the East. *For a New Science* stands as a manifesto of this aspiration: a call to found a new discipline that would unite reason and faith, observation and intuition, science and soul (Fogazzaro 1898).

What emerges from this text is Fogazzaro’s remarkable familiarity with the scientific debates of his time and the key figures involved. Although he never explicitly cites his sources, it is clear that he possessed a deep and nuanced understanding of contemporary medical and psychological literature. For example, his reference to the experiments conducted by Charcot on the patient Rosa, in the presence of Joseph Élie Méric (1838–1905)—a Catholic theologian and philosopher affiliated with the Sorbonne and active in psychical research and spiritualist studies (Méric 1891)—is drawn almost verbatim from *Le Diable au XIXe siècle* by Léo Taxil (Taxil 1892). Fogazzaro’s discussion is rich in detail, demonstrating not only a solid grasp of scientific findings but also a capacity for critical engagement with their broader philosophical implications.

Fogazzaro’s critique is particularly directed at positivism, which he sees as a worldview overly fixated on material facts—on the *positum*, that which is given and measurable. He challenges this reductionist approach, arguing that it fails to account for the more elusive, spiritual, and subjective dimensions of human experience.

⁹ Although not explicitly named, the reference is to Gyanendra Nath Chakravarti (1861–1936) an Indian scholar, philosopher, and prominent figure in the Theosophical movement. Educated in both Western and Eastern traditions, he began his academic career as a lecturer in physical science and later became a professor of mathematics at the University of Allahabad. In 1893, Chakravarti played a significant role on the global stage by representing the Theosophical Society at the World’s Parliament of Religions in Chicago. This event was a landmark in interfaith dialogue, and Chakravarti’s lectures were well received, contributing to the growing interest in Eastern spiritual traditions in the West. He travelled to England and the United States with Annie Besant and other Theosophists, delivering talks that emphasized the unity of religious thought and the spiritual depth of Indian philosophy.

See: Judge WQ. G. N. Chakravarti. In: Eklund D, ed. *Echoes of the Orient: The Writings of William Quan Judge*. Vol II. 2nd rev. ed. Point Loma Publications; 2009: 487-488.

Especially compelling is Fogazzaro's treatment of Jean-Martin Charcot, whom he presents as both a representative of positivist science and, paradoxically, as someone open to phenomena traditionally excluded from scientific inquiry. In Fogazzaro's reading, Charcot quite literally and symbolically "opens the door" to hypnotism—an act that signifies a broader willingness to engage with the unknown and the immaterial. This duality in Charcot's position—rooted in empirical rigor yet receptive to the unexplained—becomes a powerful emblem of the transitional moment in which science found itself at the turn of the century.

Fogazzaro also highlights the coexistence of positivism and spiritualism in late 19th-century thought—a period saturated with what, in hindsight, appear to be irreconcilable dimensions. The fascination with the darker phenomena of spiritualism was widespread in 19th-century France; one need only recall Victor Hugo (1802–1885)'s experiments with the *table tournante* (Hugo 2014). Yet with the rise of positivism came the attempt to wrest these phenomena from the realm of the inexplicable and illuminate them with the light of science.

Thus, phenomena such as demonic possession and the mystical ecstasies of saints were reinterpreted by Charcot and his students through biological and scientific frameworks—as manifestations of hysteria, a condition they regarded as biologically rooted, transhistorical, and transcultural (Charcot and Richer 1887). A notable example is the work of Georges Gilles de la Tourette (1857–1904), particularly his *bibliothèque diabolique*, which offered critical analyses of cases such as the possessions of the nuns of Loudun and the figure of Sister Jeanne des Anges (1602–1665) (Legué and Gilles de la Tourette 1886). Charcot himself addressed these tensions in a letter to the Italian scholar Giulio Melotti (1857–19??), in which he discussed hypnotism and its influence on the masses (Charcot 1887). He lamented the "vulgar propagation of hypnotism" and praised the Italian government's decision to suppress public theatrical displays of somnambulism by magnetizers. In Charcot's view, such measures were necessary to prevent the spread of mass hysteria. He further insisted that medicine alone should retain full authority over hypnotism, applying it exclusively "for the treatment of the sick, or for physiological or psychological research," and explicitly rejecting any external interference (Charcot 1887).

This rationalizing impulse extended beyond the Salpêtrière. Nobel laureates Pierre Curie (1859–1906) and Marie Curie (1867–1934), along with future laureate Charles Richet (1850–1935), all expressed interest in the spiritualist phenomena surrounding the Italian medium Eusapia Palladino (1854–1918)—a sign of the era's complex entanglement of scientific rigor and metaphysical curiosity (de Ceglia and Leporiere 2020). This was not the irrational erupting within the rational, but rather an effort to illuminate the obscure and bring it under the disciplined control of scientific inquiry.

Rather than treating the domains of spiritualism and positivism as mutually exclusive, Fogazzaro explores the tensions and overlaps between them, being actively engaged with contemporary debates on hypnotism, dual consciousness, and psychic phenomena. His vision is not one of rejection, but of synthesis: a call for a new science—one that does not abandon empirical observation, but expands its scope to include the inner life, the soul, and the spiritual dimensions of human existence. While he remained cautious of spiritualist excesses, he believed that these phenomena pointed to dimensions of human experience that materialist science could not fully explain. His approach was neither credulous nor dismissive, but rather exploratory—seeking to expand the boundaries of legitimate scientific inquiry.

Fogazzaro's legacy is thus twofold. As a novelist, he gave voice to the moral and spiritual dilemmas of a society in transition, crafting narratives that remain central to the canon of

modern Italian literature. As a thinker, he stood at the crossroads of science, religion, and philosophy, advocating for a vision of knowledge that was both intellectually rigorous and spiritually open.

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***For a New Science* by Antonio Fogazzaro (*Per una nuova Scienza*, 1898)¹**

FOR A NEW SCIENCE²

In 1891, three young Americans—two of whom were skilled illustrators and the third an amateur photographer—while traveling in India, heard about the wonders performed by a fakir. They wished to witness them and prepared accordingly: the two illustrators ready to quickly sketch what they saw, and the photographer ready to take a number of snapshots. And so they did. The fakir, surrounded by a crowd, was working nearly naked, with no tools other than a piece of carpet and a rag. The Americans saw him lay the carpet on the ground and perform incantations over it. Something began to swell and ripple under the carpet; a young boy slipped out. Suddenly, the fakir found himself holding a rope he hadn't had before. He threw the rope into the air, and it stayed there—its upper end attached to nothing, the lower end dangling two feet from the ground. The boy grabbed the rope, climbed up it, and vanished—fading into the air. A quarrel broke out between the now invisible boy and the magician, who looked upward and gestured toward the void. Suddenly, a knife flashed in the fakir's hand. He too grabbed the rope, climbed it, and vanished as well. The spectators now saw only the rope, stiff and swaying above the carpet. Then came a horrible rain of severed limbs falling onto the carpet—arms, legs, torso, and head of the boy. The fakir reappeared, sliding slowly down the rope, and jumped to the ground. He began reassembling the boy's dismembered body, covered it with the carpet, and murmured a few words over it. Under the carpet, there was nothing. But someone pushed through the crowd from the outside—it was the boy, elbowing his way in and jumping back onto the carpet. The illustrators captured two or three sketches of moments from the performance; the photographer took about a dozen snapshots. Then, they compared the drawings and the photos. The drawings, roughly, matched one another; the photos showed the fakir gesturing—but no boy, no rope, no severed limbs—none of the miraculous.

No one could explain this marvel, which has long been practiced in India, since a German scholar, Mr. Werner Friedrichsort, recently found a description of it in an Indian manuscript over a thousand years old. I have recounted it as a symbol of the relationship that has existed until our day between the marvelous and official science. Until now, official science has spoken just as that photographic lens would have, had it been able to: "I do not see the marvelous. I cannot be wrong. If there is a contradiction between the human eye and me, the error lies with the human eye. The supposed wonders of this fakir do not exist. I see a man doing nothing extraordinary, and many amazed people staring at nothing." Official science has said: "The preachers of the marvelous contradict me. I have never seen it. The error cannot be mine. The marvelous does not exist. I see only impostors and ignoramuses." But clearly the lens would have been mistaken, because even if it disproved the spectacular wonders, the other marvel remained intact: the drawings created out of nothing at the same time, and found to be consistent. Thus science erred—and this has been its attitude until recently toward those who

¹ English translation from Italian by Francesco Brigo. Original text published in: *Discorsi*. Milano: Cogliati; 1898:97-137

² The paragraph structure of the original Italian text has been preserved.

claimed to have observed in man new phenomena, apparently contradicting its catechism. It is curious and instructive to note how religion is often accused, in the name of science, of refusing to accept facts that threaten the stability of dogma. But official science—the science of Institutes and Academies—has always done the same with its own dogmas! I would even say that religious bigotry is gentler than scientific bigotry. When one considers that religious passion is far more natural to humans than scientific passion, the infamous error of the Inquisition in the 17th century pales in comparison to the excommunications launched by the Holy Offices of science against those heretics who believed in Mesmer's animal magnetism, in Braid's hypnotism, and in electrobiology. It is the story of a century, from 1778 to 1878: from the bizarre figure of Dr. Mesmer the enchanter—in wig, sword, and violet silk suit, walking with his iron wand in a dimly lit hall among groups of ladies and gentlemen to the sound of an invisible harmonica—to the cold, proper figure of Dr. Charcot in black suit, surrounded by assistants and the wretched hysterical women of the Salpêtrière. Mesmer was excommunicated in 1784 by the Academy of Sciences and the Academy of Medicine in Paris. He had to leave France. The doctors who had followed him in heresy were nearly burned alive; they were forced to swear that animal magnetism did not exist and that they would never again utter its name. Fifty years passed. Animal magnetism, which had never ceased to be preached and practiced in the countryside, returned to assault the Academy of Medicine in Paris. After years of intellectual war, the Academy repelled it triumphantly with this famous declaration: "The Academy of Medicine will henceforth treat any proposal concerning animal magnetism as the Academy of Sciences treats proposals concerning perpetual motion and the squaring of the circle." Animal magnetism withdrew, but did not give up. Through the work of a Scottish physician, Dr. Braid, the American Grimes, and the electrobiologists, it transformed itself, changed its name, and knocked again at the doors of the Academy, now calling itself hypnotism, electrobiology. It succeeded for a moment, in 1860, in entering—but was soon recognized and ignominiously expelled.

Broca, who had taken it under his patronage, quickly abandoned it to avoid compromising his career. Thus he lost the glory that would go, eighteen years later, to Charcot. In 1878, Dr. Charcot—member of the Institute, professor at the Faculty of Medicine, physician at the Salpêtrière, an illustrious scientist steeped in the spirit of modern science—dramatically converted to hypnotism, exactly one century after Mesmer's arrival in Paris. Aside from charlatanry and greed, how much of Mesmer is there in Charcot's methods! Mesmer produced magnetic phenomena by touching and pressing certain parts of his patients' bodies; Charcot made a theory of this method, discovered—or thought he discovered—points in the human body he called "hypnogenic," which, when touched or pressed, would cause the subject to faint. He needed only to touch the elbows of a major hysterical patient at the Salpêtrière, named Rosa, to put her to sleep. Mesmer had invented animal magnetism; Charcot used magnets. In the presence of Abbé Méric, professor at the Sorbonne, who wanted to verify the phenomena he had heard about, Dr. Charcot hypnotized Rosa and induced catalepsy on the right side of her body. Abbé Méric then brought a magnet near her left side. After two minutes, her right arm and leg relaxed, and the catalepsy passed to the left. On another occasion, again in Méric's presence, Rosa was placed in a state of somnambulism and made to sit behind a tall screen. On the other side of the screen, back to back with her, sat a mute girl who was not hypnotized. On a table, not far from Rosa, was a magnet. After a few minutes, the mute girl began to speak—saying "papa, mamma"—while Rosa could no longer articulate a single syllable. I know—other doctors would later come, the Nancy school would declare that hypnogenic points and magnetic transfer of phenomena were illusions, all due to suggestion. But there is a nemesis for Academies too, and whatever the truth may be, that nemesis chose to let hypnotism enter the

old fortress of official science, waving flags very similar to Mesmer's once-despised colors. Charcot did not have to fight. Fortunately for him, by 1878 the old warhorses of the Academy who had fought campaigns in 1825, 1831, and 1837 against animal magnetism were dead. A mere declaration was enough for Charcot to enter as a triumphant figure, followed by a crowd of supporters who acclaimed him and promised him immortality. He believed he was acting as a physician and judged that the phenomena of hypnotism could at most arouse curiosity among laypeople. Only years later did he see the immense consequences of having introduced hypnotism into the most august and closed domains of official science. Those grim old Academicians who had kept out all things marvelous and occult perhaps instinctively sensed the danger of yielding even a single inch. The day an old institution changes a single habit, the day an absolute government introduces a single liberal reform—those are the days that mark the beginning of future crises, of deep and unpredictable transformations.

I.

I imagine, like Durand (de Gros), official science in 1878 as a grand and ancient building in the style of the 17th century, designed and founded by the glorious masters of the experimental method on a site reclaimed from ridiculous superstitions, absurd theories, and fantastical medieval hypotheses. It was erected, stone by stone, upon firm foundations by successive generations of disciples who made it a splendid construction and took pride in it, believing that, one day, they could reach the heavens with their method, their tools, and their stones. It was both a palace and a fortress, well-fortified and well-guarded at every gate against any possible return attack from those ridiculous superstitions, those absurd theories, those fantastical hypotheses already fought and driven away by the original builders. The splendid halls of the palace are still today adorned with monuments of the most famous pontiffs of the natural sciences, with inscriptions that glorify the omnipotence and consistency of the laws they discovered, exalting human reason and the human senses as the sole sources and instruments of every scientific advance. I see, wandering through this place in 1878, a crowd dressed in black, adorned with many decorations, uniformly grave in appearance, but showing—at least to a careful observer—divergent tendencies in their eyes. There are old men, and not lacking are young men who, to their very core, feel the honor of belonging to the house and are ready to defend its traditions with the most ardent zeal. But there are other young men—and above all, men in the prime of life—who, though housed in a splendid residence, feel a lack of air, a stifling closeness, a heavy atmosphere of the old regime. Nothing in their speech reveals this, but while the first group—conservative in spirit—never approaches the windows, the others do go to them, and it is likely they see and hear what is happening outside among the laymen.

One evening, the palace's main door opens at the signal of a house prince: Dr. Charcot. A strange figure appears on the threshold. Charcot offers his arm, leads him in, and presents him to the astonished colleagues: "Hypnotism." Immediately the mysterious figure pulls out and offers a document that justifies his entry. The learned examine it. The document is in perfect order; hypnotism is described there with scientific precision. The date of birth is missing, but it matters little—they'll simply write "today." The father's name is missing, but the presenter does not object to inserting "Charcot" in the blank space. Some conservatives wish to point out that the certificate already bears Charcot's signature, that in the end, Charcot is both presenter and certifier, and that he is perhaps asserting his authority a bit too much—but his authority is so great, and he has so many admirers and friends inside, that no one dares protest. The figure is

admitted; he is immediately surrounded, touched, examined, interrogated, dragged from group to group, from hall to hall. But what happens now? Without Dr. Charcot's knowledge, without anyone realizing it, the street door has remained open. A swarm of masked misfits—friends and companions of Hypnotism—rushes in noisily. The guards run to intervene, cries ring out from above: “Shut the door!” But the door is hypnotized—it no longer shuts. The bizarre masks climb the stairs shouting, burst into the hall. An enormous confusion ensues. These newcomers bear an alarming resemblance to the monstrous medieval phantoms that once possessed the place. They call themselves Mental Suggestion, Telepathy, Bilocation, Psychic Force, Clairvoyance, Spiritism, Materialization, Apparitions of the Dead, of Ghosts, of the Living. Their appearance in the halls causes a true revolution. Everyone shouts; some want to throw the intruders out the window. But the prevailing faction decides to let them stay—on the condition that they remove their harlequin costumes, dress more decently and soberly, abandon their street-performer habits, change their romantic postures, and scrupulously respect the laws and regulations of the experimental method, submitting to every exam, every interrogation, every possible test. The followers of Hypnotism agree immediately—but this does not restore order to the halls. Though they shed their eccentric garments, they cannot shed their fantastic and unruly nature. Even when being examined, they examine in turn, adopt insolent behavior, sometimes even mock the experimental method. Occasionally, they smash some old worm-eaten and venerable piece of furniture, deliver speeches on physical laws that clash scandalously with the solemn epigraphs on the walls—so much so that they make the hair of the great scientists' statues stand on end. There is even talk of malicious enchantments, and fear arises that the very august edifice of science may, through some occult work of theirs, be in danger.

II.

It seems to me, gentlemen, that this allegorical image—drawn largely from Durand (de Gros)—faithfully represents what happened in the scientific world after Charcot's conversion and the admission of hypnotism into the Academy. All things marvelous concerning psychic phenomena were admitted for scientific examination. It was agreed that all alleged manifestations of occult forces, seemingly in contradiction with the most unshakable laws of the physical world, could be explored. A deep skepticism crept among scientists concerning the body of knowledge acquired over centuries of labor.

A wholly new disposition emerged among them—not only to accept the dose of the marvelous being offered but to take even more, should it be required. Their books began to carry epigraphs such as: — “He who utters the word ‘impossible’ outside pure mathematics is a reckless man.” — “The possibilities of the universe are infinite.” — “It is unphilosophical to deny a phenomenon solely because, in the current state of science, it is inexplicable.” Medical faculties admitted graduating students to defend theses on occult psychic phenomena. A society of physiological psychology was established in Paris. Its president was Charcot himself, and its secretary was Dr. Richet, professor at the University of Paris. Among its members were scientists such as Helmholtz and Lombroso, and critics like Taine—when the issue of specters was brought to the table. A Society for Psychical Research was established and remains active in London, composed of eminent men from every branch of human endeavor, among whom I need only mention Wallace, Darwin's rival, and the venerable William Gladstone. At a congress of the British Association for the Advancement of Science, Mr. Lodge, president of the Physical and Mathematical Section, delivered a speech on the necessity of studying occult psychic

phenomena. Very serious and wise people sometimes forget the caution and methodological rigor that should never be separated from scientific inquiry. They run the risk of losing their heads—a grave danger for anyone who studies the marvelous without knowing whether they are prone to dizziness. Dr. Loys claimed before the Academy the action of medicines at a distance. Colonel Rochas, administrator of the École Polytechnique in Paris, claimed to peacefully and without consequence perform in his laboratory things that, in past centuries, led thousands of witches and sorcerers to the stake. He claimed he could make a man bleed on the face, wherever he might be, by scratching the surface of a photographic negative of his portrait with the tip of a penknife. These excesses benefit the opponents of the marvelous, who still constitute a vast and powerful majority.

There are several categories of such opponents. The lowest is that of the presumptuous ignoramuses, in honor of whom it was said: “When Pythagoras discovered his famous theorem, he sacrificed a great number of animals to Jupiter. Since that hecatomb, whenever a marvelous discovery is announced, all the beasts cry out.” Then come the skeptics who have an instinctive aversion to the supernatural and mask it with arguments that would be valid—if the scientific investigation of spiritual mysteries were not so difficult that it is reserved for a very few, just like the scientific study of celestial mysteries. According to these critics, the study of an occult world is not sufficiently worthy of those who, in the visible world, have so many duties to fulfill, so many personal and social interests to pursue, and so many other, allegedly more useful, studies to cultivate. Next are those who, out of social conformity, mental timidity, or a simple laziness of reasoning, deny the marvelous in theory—yet admit to recalling mysterious, inexplicable incidents that happened to themselves, their relatives, or their friends. Then stands the ancient scientific spirit in opposition to the marvelous. It has lost, it is true, the Olympian calm of its sovereign days. Now it denies, it rages, it feigns disdain and poorly conceals its hatred. “I ask myself,” exclaimed the illustrious Professor Wundt of the University of Leipzig, “whether we must admit that the only world apparently real around us is, in fact, composed of two vastly different worlds: one being the universe of Copernicus, Galileo, Newton, Leibniz, and Kant—governed by immutable and eternal laws; the other, a lesser world of goblins, spirits, witches, and mediums—capable, for the benefit of hysterical people, of turning all the laws of the greater world upside down.” These scornful words from Wundt lead me to observe that the aversion to the marvelous is a characteristic of our Western civilization—that is, of a civilization that claims to have its origin, its strength, and its purpose within itself; a civilization that constantly marvels at what it knows, that aims at a proud satisfaction of intellect and at multiplying the comforts of life; one that glorifies science as omnipotent in the future, as the sole heir of all religions. “Knowledge for the sake of knowledge”—this, in the scientific field, is the supreme goal of this proud and glory-laden civilization. Even when it turns to examine occult psychic phenomena, it listens little to the inner sense, to the voice of conscience. It places little value on theory, on hypotheses, on pure reasoning, and it disregards the moral element in the search for truth. It experiments. It collects facts—facts and more facts—as if in physical sciences, hoping in vain for the same kind of glory. It will give us a psychology without a psyche. It will never be able to grasp the spirit. It will either deny it or abandon the task altogether. When it arrives on the shore of an unknown sea, finding its microscopes, telescopes, and all its countless instruments useless in its hands—those same tools that helped it conquer so much of earth and sky—it will refuse the invitation of the vast waters and the stars mirrored therein, signs of arcane paths. It will reject the boats and sails waiting on the shore, even though bolder navigators—without rudder or compass—might dare them. Marvelous psychic phenomena are like the strange characters of unknown languages found in the hypogea of antiquity: they surprise us, stir our thoughts, awaken our imagination—but are of no use unless

we manage to penetrate their hidden meaning, to draw from their totality a coherent concept. Better yet: they are the bizarre shells of that unknown sea surrounding human knowledge. Very strange, very curious to behold—but of no other use than to decorate a parlor or amuse an idler for a few moments—unless we dare to open them. The science of the spirit, cultivated since ancient times in the East, can serve us as an example in many ways. This does not mean imitating fakirs or any sorcerer performing miracles for the public's amusement. The superior men who stand at the heights of philosophical thought in India have nobler aspirations. According to Indian thought, the human soul—conscious of its own immortality—seeks to subjugate lower nature not to gratify intellectual pride or the senses, but to ascend the path of perfection toward God. The Eastern thinker finds it strange that we train for a long time, with exercise, sacrifice, and effort, to perform a great physical feat—and yet pay no attention at all to undertaking a rigorous and austere moral preparation for the study of the soul, a study that for him has a mystical purpose.

A learned Brahmin who attended the Congress of Religions and the Theosophical Congress in Chicago gave a noble speech at the latter, in which he deplored the invasion of his august homeland, India, by Western materialist science. He joyfully welcomed, however, a curious movement of sympathy growing in America and Europe, where certain mystical spirits turn toward India—great, declining, venerable ancestress of our peoples and our languages—to learn from her the science of the human soul, and above all, the method of studying it. That Brahmin was a professor of mathematics, and I believe he knew how to honor Western science as a rigorous and exact observer of facts. It is not possible to reason about the mysteries of the human spirit without first relying on those facts stamped with the seal of our science. Let us examine some of these facts as a test. Let us see whether they must remain hermetically and perpetually sealed from us—like the shells I mentioned earlier—useful only to amuse the idle. Or whether it is more worthy to attempt to open them, and whether we may hope, if successful, to find, in at least one of them... a pearl.

III.

Let us begin with hypnotic suggestion.

I will choose two cases among the many for which reliable scientific documentation exists—two in which suggestion acts on the organism in a marvelous way.

A young woman, Elisa from Nancy, is put to sleep by her physician at eleven o'clock, in the presence of Professors Bernheim, Liébeault, Beaunis, and others. The doctor applies eight postage stamps to her left shoulder and suggests that they are a blistering agent. The stamps are held in place and covered with a device. The young woman, continuously monitored, sleeps almost the entire day and night. The apparatus and stamps are removed; there appears a yellowish-white spot surrounded by a red, swollen area—the blistering effect has begun. Dr. Bonjean hypnotizes another young woman in the presence of several colleagues and suggests that ten minutes after awakening, two red marks will appear on the backs of her hands and blood will ooze from them. The woman wakes, and after ten minutes, two reddish-blue spots appear, followed by drops of blood seeping from the skin. Her hands swell and remain swollen for several days. What did hypnotic suggestion accomplish in these two cases—and in countless others where it was used especially for the treatment of nervous disorders? “Here is what



happens,” says Dr. Bernheim, one of the most authoritative apostles of suggestion as a therapeutic tool. “We have a paralytic patient. His brain becomes convinced that the paralyzed limb can move and sends a strong motor impulse to the inert nerves. We have a patient in pain. His brain, influenced by the idea that the pain is gone, produces a particular alteration of the cortical sensory cells, so that they no longer feel pain.” I must first observe that this explanation sounds a bit too much like Molière’s doctor: “Opium causes sleep because it contains a dormitive virtue.” It also resembles this analogy: “An electric bell button, struck by the idea that a door will open, produces such a modification in the bell that the door actually opens.” The truth is this: Science, which limits itself to observing phenomena that fall under the senses, has never been able—nor ever will be able—to explain satisfactorily how the idea of suggestion acts. We spiritualists do not know the secret either, but the more we find it jealously hidden despite our efforts, the more we conclude that what it conceals must be precious. I do not know how, in a hypnotic state, the idea of a wound causes the skin to redden and blood to flow, but I do observe that the power of moral emotions over the body is universally acknowledged; that many people can produce a painful sensation in one part of the body or another by mere mental command—thus, hypnotic suggestion merely exaggerates an ordinary faculty of the human spirit to an extraordinary degree.

The observation of this mystery, combined with the observation of the ordinary facts mentioned, shows us that thought possesses the power to cause profound transformations in the body it inhabits—it can shape the body according to its will at a specific point, where it aims and strikes. Hence, it is highly probable that the body is a product of thought, as we spiritualists claim, and not that thought is a product of the body, as materialist science maintains.

Another mystery. The person subjected to the effects of suggestion is, in many cases, completely unaware of it. Let us set aside suggestions that operate physically on the body—producing or curing illnesses or altering the action of the senses. Let’s consider another type: post-hypnotic suggestions. You hypnotize someone and suggest that in a week, or a month, or a year, at exactly noon, they should come to your house and ask for a cup of coffee. That person entirely forgets the suggestion—but on the appointed day, as the set hour approaches, a strange agitation takes hold of them, and they come to your house, as if led by fate, and carry out your command without ever suspecting for a moment that they are not acting of their own free will.

This really happens; these are verified facts that no one doubts.

A young woman, for instance, becomes angry with her mother, and the two stop seeing each other. Aubin Gauthier hypnotizes the daughter and suggests that she reconcile with her mother. A moving scene follows, and the daughter has no idea that she has obeyed the will of a man who imposed his intention upon her. Where did the suggestion hide? Where did it act? Is there, then, a part of our being of which we are not conscious? Yes, certainly—and post-hypnotic suggestions aren’t even necessary to prove it. How many forgotten experiences lie buried in the unconscious depths of our mind! From time to time, fragments resurface during waking moments—more so in dreams, and even more in delirium. It’s likely that all our actions and words remain stored in our memory, though almost all sink into the unconscious, awaiting some future manifestation. Consciousness is in the human soul what the eye is to the body. Man can see with the eye only part of himself; he cannot penetrate his most inner, most vital self. Do not creative inspirations come to us artists from unexplored depths of consciousness? Reasoning, the logical process of thought, takes shape within our consciousness—but not artistic creation. The ancients felt that a poetic idea seemed to burst suddenly into consciousness, carried by an

arcane breath. They imagined the Muses as inspirers, and only when their religious feeling declined did the invocation of the Muses lose its true meaning and become empty rhetoric. We, when a verse, a lyrical idea, or a scene for a novel or drama flashes in our mind, are moved—as though inspiration truly came from another spirit. And sometimes, we believe it does. Yet it is more likely that it rises from those same depths of the soul where forgotten memories accumulate.

In fact, there are times when we mistakenly enjoy the thrill of artistic creation, thinking we are inspired, when really it is only reminiscence. Unfortunately, we are not the first to realize it—almost never; others notice it before we do. When, before going to bed, we resolve to wake at a fixed hour—and actually do wake at that precise time, as happens to many—where is suggestion at work, if not in a part of our being that never sleeps, where things occur of which we are unaware? I believe that in this obscure region of the soul lies the secret of its future—and I will explain this idea more fully later. For now, since I spoke of consciousness—and since both in the hypnotic state and the waking state consciousness is subject to deep alterations, from which an absurd hypothesis has been drawn that gravely offends the sense of human personality—I intend to oppose that hypothesis.

IV.

Let us consider one of the many hysterical women hypnotized by scientists who have thoroughly documented their experiments. Take, for example, Léonie, studied by Pierre Janet. She is a peasant woman, now 46 years old. She experienced episodes of natural somnambulism at age three. From the age of sixteen onward, she was hypnotized countless times by all sorts of people—in the salons of ladies and in the laboratories of scholars. As happens with most hypnotized individuals, Léonie completely forgets in her waking state everything she said, heard, and did during the magnetic sleep. She thus has a double existence. In her normal state, she is serious, somewhat sad, very gentle, and very shy. In her magnetic sleep, she is cheerful, playful, satirical. In her normal state, she is a zealous Catholic; in her magnetic sleep, she speaks like a convinced Protestant. In her magnetic sleep, she refuses to acknowledge being Léonie. She rejects that name and attributes to Léonie everything belonging to her normal existence. "A good woman," she says, "but foolish." She insists on being called Léontine. When she falls into somnambulism while traveling by train and becomes Léontine, she wants to go back to fetch Léonie from the previous station. In short, there is an apparent splitting of personality. This also occurs, though rarely, in the waking state, but such cases have been observed with great precision.

The case of Felida, studied by Dr. Azam, is famous. Felida was born in Bordeaux in 1843. She is very intelligent, highly nervous, melancholic, and reserved. At thirteen, she began working as a seamstress for income. At fourteen and a half, she began exhibiting the strange phenomena that made her name renowned among students of psychic science. Nearly every day, she suffers from acute pain in her temples and suddenly falls into a stupor. It is impossible to wake her; she hears no noise, feels no pinches. After a few minutes, she spontaneously wakes up—and is no longer the same Felida. She opens her eyes, smiles at those around her, resumes her work humming, gets up, and cheerfully tends to housework. Before, she complained of many ailments; now she feels almost perfectly well. After three or four hours, her cheerfulness suddenly vanishes, her head drops to her chest, and she falls back into the previous torpor. A

few minutes pass and she wakes up. She resumes work but is disoriented; her family must help her. She no longer sings, and if someone asks why, she stares blankly, unable to understand the question. She remembers nothing from those three or four hours and returns to being the same melancholic, taciturn girl. This occurs almost daily in 1858. In both the normal and what Dr. Azam calls the second state, her reasoning is intact—only her character changes. But in the second state, Felida perfectly remembers everything from her normal state, whereas in the normal state, she remembers nothing of the second condition. She always refers to the state she is in as the rational one, whether it's the first or second, and calls the other a crisis. As years go by, Felida—who becomes the mother of a large family—continues to alternate between these two existences. The second-state episodes become longer and longer, lasting for months. If she returns to the normal state for an hour or two, she forgets everything about her ordinary life and becomes distressed, fearing madness, sometimes tempted by suicide. She undergoes strange and cruel experiences. While in her second state, her sister dies. Returning to her normal state, she finds herself in mourning, senses someone has died, but doesn't know who.

Even more remarkable is the case of a young woman observed by Dr. Defay in 1876. She is nearsighted and cannot work without glasses. One evening, she is sewing at a table, hunched over a lamp. Suddenly, her head drops onto the table and stays there for a few seconds. She then sits up, angrily removes her glasses, pushes the lamp away; if she needs to thread a needle, she does it under the table, in the dark—and instantly the thread passes through the eye. Her already impressive intelligence becomes extraordinary. However, when referring to her normal state, she uses the third person, saying, "when I am stupid" ("*quand moi est bête*"). She thus possesses two personalities, not just for others like Felida, but even for herself, like Léonie.

There is a hypothesis—boldly and clearly stated by people like Durand (de Gros) and more cautiously hinted at by others like Binet—that attempts to explain differently the phenomena I have previously attributed to the dark and unconscious part of the human spirit. It aims to explain cases of double consciousness, dreams, and events like those mentioned by De Maistre in *Voyage autour de ma chambre*, and by Stuart Mill, who recounted—somewhere—that one day in London, after leaving the Bank of England absorbed in a metaphysical problem, he crossed the entire city without seeing or hearing anything, always taking the correct route and navigating the stream of people and carriages with certainty. This is an ultra-spiritualist hypothesis. Some people are not content with attributing a single soul to each of us—they want to grant us many. The unity of the human person is broken; each individual is seen as a cluster of distinct beings, of whom only one is self-aware, while the others are called subconscious. According to Durand (de Gros), it is the subconscious selves within us that possess the deepest knowledge and richest treasure of memories. They are the ones who offer us the marvelous representations of dreams, where the monstrous and the sublime alternate, where our entire being is ruled by emotions more tender and profound than those of real life, where we are carried away by visions of superhuman beauty. They are the ones who work for us during sleep, who wake us at a set hour, who present us in the morning with the solution to a problem we struggled with the night before. They are the ones who manifest in the hypnotic state and in natural somnambulism, in cases of double consciousness. The human individual is not a unity but a colony.

Well, this repugnant hypothesis does not hold. First of all, even the hypnotic or pathological phenomena of double consciousness, like the phenomena of hypnotic or pathological suggestion, are merely exaggerations of ordinary occurrences. Let each of us, having reached maturity, reflect on ourselves—think about the feelings, thoughts, and judgments we've had in

different phases of life. Imagine each phase as a different individual. Suppose these individuals met—would they not quarrel? Would they not insult one another? Would they not become enemies? Would they not bitterly mock anyone who tried to throw themselves among them, shouting, "Peace, unfortunate ones! You are one and the same"? Who among us has not asked themselves at least once in life: how could I have said that? Done that? How could I have believed that? Loved like that? Who has not often felt like another person? Who does not feel daily within their conscience two adversaries arguing and a judge deciding? And yet, who—being of sound mind—has ever lost the sense of their own personality, one and continuous? If, while dreaming, we feel as though our nature changes, or that we have split, becoming ourselves and someone else at the same time, we must reflect that in dreams, the most blatant contradictions lose their absurdity for the dreamer. Being and not being are mixed together inseparably. The dream offers us, in disarray, memories of sensations, ideas, feelings from different times in our lives—which naturally contradict one another. We must also reflect that a certain murky sense of our unity persists even in dreams. And finally, when we awaken and recall the delirium of our visions, our conscience immediately reclaims them. We instantly know we were the ones who dreamed them.

Even in Felida's case—and in the similar case of the young woman observed by Defay—the consciousness of personal unity is obscured but persists. Felida retains it fully in the second state. The other uses the third person to speak of herself, but says, "when I am stupid." I myself have seen a subject lose the consciousness of their own personality in the hypnotic state—but do you know what personality they assumed? That of the person questioning them. This proves how the consciousness of personality can at times be disturbed—without there being even the faintest reason to suspect a plurality of souls.

V.

Certain phenomena, whose precise observation is difficult—also due to the frequent simulations by the subjects—and whose true meaning remains obscure, have led some scientists to admit the existence of a true split in the human personality, not in the form of successive lives as discussed earlier, but of simultaneous ones.

Léontine and Léonie sometimes seem to exist at the same time. "My dear good sir," writes Léontine to Professor Pierre Janet, "I come to tell you that Léonie, really and truly, is causing me much suffering."

Here, one might suspect some kind of deceit, as I am inclined to believe. One might also say that behind this extraordinary event lies a common one: that many of us, at times, mock or rebuke ourselves without for a moment doubting our unity. Yet there are other facts.

Among many hysterical patients, we find what in France is called *la griffe du diable*—the devil's claw—meaning a total or partial anesthesia. Suppose a subject has complete insensitivity in the right arm. The experimenter prevents the subject from seeing their own right arm, either with a screen or in some other way, and then places a pencil in the numb hand. Immediately, the thumb and index finger grip the pencil, and the whole hand takes the posture of writing. How can this happen if the subject had neither any sensation of the pencil nor could see it? According to these scientists, it means that in the arm exists a principle of personality distinct

from the main person. Professor Janet went further: he found that distraction in hysterical patients produced the same effects as anesthesia. While Léonie is distracted, the professor gets the same movements from her sensitive arm as he previously obtained from the numb one. While the hysterical woman Lucia is speaking with someone else, the professor places a pencil in her hand and asks, “Can you hear me?” Lucia continues her conversation with the other person and writes: “No.” This is followed by the following dialogue—spoken by the professor, written by Lucia:

Professor: But to answer “no,” you must have heard me.

Lucia: Yes.

Professor: Then how do you do it?

Lucia: I don’t know.

Professor: Then someone must have heard me!

Lucia: Yes.

Professor: And who might that be?

Lucia: Not Lucia. Someone else.

Professor: Fine, someone else. Shall we give her a name?

Lucia: No.

Professor: But it would be more convenient!

Lucia: Alright, Adriana.

Professor: Then, Adriana, can you hear me?

Lucia: Yes.

Oh, gentlemen, I respect Professor Janet, but it seems evident to me that in this experiment he deceived himself, became the victim of a double suggestion—he suggested to the hysterical subject, and he suggested to himself. He acted with the unconscious intention of obtaining proof that his hysteric’s personality was double. In my view, he did not succeed at all. But how? If while Lucia is speaking to someone else and does not hear you, yet there is an Adriana in her body who does hear you and can respond—why, when you first asked “Can you hear me?”, was the answer “no”? That was Lucia’s false and foolish “no”—and if the experiment had been conducted with someone less cooperative, the simulator would have noticed she had fallen into a trap. Instead, Janet unconsciously offered her a way out, suggested to her, one by one, all the responses needed to create and forcibly name an imaginary second Lucia. And what about the so-called unconscious intelligence attributed to a numb arm during anesthesia? That’s mere automatism—and we constantly live in automatism. If all our intelligent acts had to be conscious, human progress would be impossible. If we had to be aware of the movements we make while walking, like a child learning their first steps, an immense part of human activity—especially all the thinking and speaking we do while in motion—would be lost. No one could pour onto the page the full flow of their ideas and feelings if they had to be conscious, like a first-grade student, of each movement needed to guide the pen, to trace a letter. But why even speak of writing? No one could speak at all if they had to be aware, while speaking, of how they are pronouncing each consonant and vowel. Likewise, one cannot even become a mediocre pianist unless one reaches the point of playing the notes automatically—so much so that one can conduct a simple conversation with their hands and, at the same time, give verbal instructions.

But this is not the kind of splitting of self that Binet and Janet speak of. Ask the consciousness of that lady who controls both her piano and her servants at once. It is the power of habit that renders so many of our actions unconscious. The pencil, the scissors, the matchbox



that those experimenters place in the hand of a distracted or numb hysterical subject are objects to which that hand has countless times associated the same movements. Habit has made them unconscious; there is no longer any need for a command from the brain to trigger them—a mere contact is enough. There is no plurality of persons in the same human individual. Our entire being protests against a hypothesis that fragments it, that lowers it, that holds others responsible for our actions instead of ourselves, and that relies on experiments of very limited scientific value. The spiritual unity of the human individual is not only imprinted in consciousness, but also in the body—which mirrors the soul and is shaped by it in form and in complex function, into unity. This unity asserts itself more clearly in the diverse motions of the limbs, speaks more plainly in the varied tones of the voice, shines more than on the single brow in the twin gaze of the eyes; it is written in life, and it is written in death. The phenomena that have inspired fantasies of a plurality of souls actually stem from automatism, or else they flash from a hidden, unconscious, powerful faculty of our own soul that has not yet fully developed—one that will be revealed more clearly in the future.

VI.

To know oneself is far more difficult than the ancient Greek may have thought. What do we really know about a hidden faculty through which some of us, at times, are able to exert an influence on the thoughts of others—without speaking, without contact, without any external sign? Madame Guyon, the friend of Fénélon, recounts that when Father Lacombe, her confessor, came to visit her, she was unable to speak, and little by little they came to exchange thoughts for hours on end without uttering a single word. Countless similar stories have been told by writers of all times. Their number, and the authority of those who tell them, could at least give pause to a skeptic. But after hypnotism was accepted for scientific examination, thought transmission was also studied scientifically by men who declared themselves entirely indifferent to philosophical questions. I intend here to speak only of facts observed with this scientific spirit, and I will select the experiments of Dr. Ochorowicz, formerly a professor at the University of Lemberg—a scrupulous, impartial observer, indifferent to the conflict between spiritualism and materialism, and convinced that neither is at stake in these matters.

He began his experiments on thought transmission in 1867 in Lublin, though he did not believe in it at the time, and he provided a most precise account of them. I do not hesitate to affirm that a layperson, unfamiliar with science and the rigors of the experimental method, would have been convinced long before he was, had they witnessed the same trials. It is truly remarkable, the coolness with which he faced astonishing phenomena, allowing him to calculate every minimal possibility of error, to resist appearances of the miraculous, and to remain faithful to this principle: “I will believe only when a subject—who expects nothing, hears nothing, sees nothing—is influenced by my thought in a manner that is certain, consistent, and not open to any other explanation.” This event took eighteen years to arrive.

In December 1884, he was treating a woman suffering from hysteria and prone to bouts of suicidal mania. One night she was taken by one such episode, and once it had passed, she persuaded the doctor to leave. As he walked down into the courtyard, he paused, uncertain whether he should truly go. At that very moment, a window above flew open with a crash, and he saw the woman leaning out impulsively. He rushed to the spot where she would have fallen



and instinctively tried to hold her back with a mental effort—almost as a billiard player tries to stop the ball with a shout or gesture. The woman was repelled backward. She attempted the jump five more times and five times drew back. Meanwhile, her family arrived; the doctor went back upstairs, hypnotized her, and she reported under magnetic sleep that she had felt herself repeatedly pushed back from below. The doctor was struck by this and resolved to conduct a serious experiment a few days later. He hypnotized the patient, then sat far from the bed, out of her line of sight. Pretending to take notes as usual, with a notebook on his knees, he scraped the pen across the paper and mentally commanded the patient to raise her right hand. During the first minute, nothing happened; in the second, some agitation began in her right hand; in the third, the agitation increased, she furrowed her brows, and lifted her hand. The doctor then mentally ordered her to get out of bed and come to him. She stood up with effort and moved toward him. Many other experiments followed. The results were not always so remarkable; in twelve out of forty-one trials, the patient did not understand the command. However, it is noteworthy that in these twelve cases, she did not try to guess—she simply remained inert.

In August 1886, Dr. Ochorowicz, conducting experiments in Le Havre with Professor Pierre Janet and others, observed the effect of mental action at a distance. Professor Janet managed to put his subject to sleep mentally in eighteen minutes from a distance of one kilometer. All of these experiments were carried out with such caution that the facts may be considered proven.

Nevertheless, very few of you will believe them. I myself witnessed an experiment in thought transmission without contact. There were only three of us; the test was conducted in private, almost secret, because the subject held an official position and did not want his superiors to know about it—such is still the strength of prejudice against the miraculous in Italy. The subject was a young man with the rare ability to hypnotize himself simply by concentrating on not thinking about anything. He fell asleep within fifteen seconds. Of the mental commands we gave him, he understood some, and others not. The other person twice raised a hand behind his back in a threatening gesture. There were no mirrors, no shadows could be cast; both times, the man turned sharply, with confused anguish and the uncertain gesture of someone mentally disturbed—not so much to ward off a blow, but more as if searching, as if trying to grasp the hidden force that had struck him. Twice I mentally ordered him to kneel. The first time, he obeyed; the second time, he did not. Several times, unable to understand a mental command that had no visible signal, he whispered with a voice unbearably sad: “Stronger, stronger!” I have recounted this personal experience—and I know many among you will consider me deluded. Yet some rudimentary example of thought transmission can be observed even in ordinary life. When we are strongly urged to guess a name, an object known to the questioner, the highest chance that the right word will burst into our mind is at the first instant. Those who do not guess right away and begin to reason it out immediately feel weakened. The encounter between the questioner’s energy and the responder’s energy lasts but a moment—and it is in this flash of contact between the conscious thought of the one and the unconscious thought of the other that the word most easily appears and is transmitted.

Something akin to thought transmission also exists in certain sudden antipathies and sympathies. Beneath the attraction or repulsion of which we are consciously aware, there must lie within the unconscious part of the soul a moral judgment sparked in the fleeting, hidden contact of a first encounter. And are not emotions transmitted even silently? Passing through a silent crowd deeply stirred—even if you do not share in their emotion—have you never felt penetrated by



something that unsettles you? Even here, then, it seems that hypnotism merely develops and intensifies a natural disposition. But what is the psychological value of thought transmission?

Is it true that it sheds no light on the great debate—ongoing since antiquity—over whether there exists in man a substance distinct from matter? Some say: “Action at a distance is not a characteristic unique to immaterial substances—if such exist. Magnetism acts at a distance. The force of gravity acts at a distance.”

These are already great mysteries, but the mystery of mental action at a distance is radically different. Physical action is constant, uniform in all directions, and decreases proportionally with distance. Mental action is neither constant nor uniform, nor can it be measured by distance. It seems equally forceful at one decimeter as at ten thousand kilometers. It stems from energies other than those of matter—energies unknown even to those who possess and use them—prepared within the human being for a future manifestation, for a higher existence in which, allow me this splendid vision, men—far more closely united than they are now—will communicate thought and affection in a mutual exchange that will multiply their power; prepared for a future world where it will be impossible—as is proper to every communion of love—to hide a secret or feign a feeling; where not even the slightest shadow of falsehood can exist.

VII.

Here we approach the boundary of scientific affirmation in the realm of occult phenomena. Perhaps we have even crossed it, because the transmission of thought without the aid of the senses has yet to receive definitive and unanimous recognition from the scientific community. Other mysterious psychic phenomena are asserted and believed, but they still lack sufficient proof to allow any conclusions about the nature and destiny of the human soul.

I could spend an entire day recounting examples of clairvoyance—from the Sibyl at Delphi who, while remaining there, saw the King of Persia in Susa frying a fish on his shield, to Mademoiselle Blanche, treated by Dr. Bue, who in 1875 was cured of a grave illness after seeing the interior of her own body while in magnetic sleep. Arago remarked, regarding clairvoyance, that it would be unwise to deny such phenomena a priori, that doubt greatly aids science, and that incredulity hinders it. My profound conviction is that clairvoyant phenomena are possible; that is, that the human soul possesses the potential faculty of seeing without the aid of organs, and that this potential can, in some very rare cases, partially manifest itself during magnetic sleep, when the soul is more detached from the senses. A lady of my acquaintance, while in magnetic sleep and in the presence of the person who told me the story, read a sealed letter that had just been delivered by a messenger and placed on her husband's desk in another room. My trust in the narrator is so great that I do not doubt the fact; however, since the husband is now deceased and, as is usually the case, the magnetized woman remembers nothing, there is only one witness to the event, and I can refer to it only as a matter of personal conviction. Professor Richet and others have conducted several experiments with scientific method, obtaining results that seemed to them highly conclusive in favor of clairvoyance. Still, the value of those results, based on probability calculations, seems to me highly questionable. Nevertheless, I will not leave the subject without noting that even in the normal condition of man, phenomena are observed which, though common, are no less mysterious and tend to show



that the brain has a faculty of vision independent of the eye. Dream visions are familiar to everyone. In the waking state, two types of closed-eye visions occur—sometimes vivid, sometimes less so. If I close my eyes and concentrate on the inner surface of my eyelids, I see a slow, continuous phantasmagoria of forms and colors, over which my will has no control. If, however, I try to evoke visions of familiar people or objects, I no longer see them on my eyelids, but rather within myself. And within myself I also see the phantoms that my imagination creates—I see their form and color. I am led to conclude that there exists in human thought a dark faculty of vision.

It will be more difficult, I believe, to scientifically demonstrate that the human soul possesses the faculty of foreseeing the future—though few believe in clairvoyance and many believe in premonitions. Desire, hope, fear, hatred, love—every passion impetuously hurls our thoughts into the unknown future. Imagination shows us, at every moment, what might happen. And the phantoms of imagination may sometimes pass so quickly that we don't know why a shiver runs through our blood, so deeply that we are not conscious of them, and only feel their aura—either of anguish or of joy. Now, if among the infinite number of premonitions that pass through the human heart some are fulfilled and remembered, while the others are forgotten or ignored, can it not be said that those fulfilled are merely numbers drawn from the urn by chance? It also happens that the name “premonition” is given to mental occurrences of a different nature. Marie Antoinette, one day walking in the park at the Trianon, encountered a man she had never seen before and shuddered.

“Premonition,” they say—because fate would later bring that woman and that man together again on a terrible day. She would be standing on a scaffold, in the center of a square of soldiers; in front of the scaffold, he—on horseback, with sword in hand—would command those men. But it is more likely that the drunken Santerre, the brutish brewer, inspired in Marie Antoinette one of those sudden, violent antipathies whose mystery we have just explored.

I clearly remember the emotion I felt as a child from a premonition so extraordinary, so sudden, so strong, so clear, that I fled in terror from the place where it struck me. It was the premonition of something rare and unusual—something children do not normally think about—and it came true more than twenty years later. I will not recount it because I can provide no testimony, and because it would take me too far from the realm of science. As we reflect thoughtfully on these problems of the human spirit, it seems that the surface of the world familiar to us—the outer shell, so to speak, of people and things—suddenly lifts like a mask, and beneath it flashes the darkness of an entirely different world.

VIII.

Now this arcane world is open to scientific inquiry. I have already mentioned the English Society for Psychical Research. This society, which has a branch in America, counted on August 1st, 1894, about 900 members in Europe and 500 overseas. It is extremely active and publishes large volumes of reports. It investigates all types of occult psychic phenomena, but particularly focuses on *telepathy*, that is, the transmission at a distance, without any known medium, of a sensation, an impression, or a mental act from one individual to another. One must look at the statistical tables published by the Society—summaries of thousands upon thousands of observations—and read the speech delivered at the General Assembly, included

in the *Proceedings* volume, by the Hon. Balfour, a Member of Parliament, to admire the seriousness and elevated spirit of these men, belonging to the most serious and practical nation in the world. These men confront ridicule in a way that few in Italy would dare, with the right understanding that nothing should be denied *a priori*, and everything must be subjected to investigation. One of the main projects of the Society was the Census of Hallucinations, an inquiry into telepathic hallucinations carried out in England, the United States, and also in France, where the Society for Physiological Psychology oversaw the project through a committee composed largely of physicians and chaired by Sully Prud'homme of the French Academy. Three members of the Society published, using the materials from the inquiry, two large volumes titled *Phantasms of the Living*. These gentlemen intended to study a specific kind of specter: that is, the images of living persons appearing at any distance—either through a powerful act of will, in a critical moment of their life, or at the hour of their death. Hundreds upon hundreds of these phantoms haunt the strange pages of the book. I would not dare to say that the reality of even one of these mysterious apparitions is rigorously proven. True, the inquiry was conducted with utmost care in collecting, examining, and weighing the testimonies. But the phenomena could only be observed indirectly, and perhaps the investigators were not entirely immune to the suggestions of a marvelous thing they believed in and wished to prove. Yet, even if the scientific value of each individual observation is small, the value of the collection as a whole is significant. When one considers that the cases recorded in *Phantasms of the Living* add to an immense number of similar reports throughout human history, one is led to judge that—based on overwhelming probability—not all such cases can be attributed to error or fraud. It is also likely that in most cases, the apparitions are not real—that the images form in the minds of those who see them, arising from a transmission of thought.

A certain young lady (this is narrated in *Phantasms of the Living*), while attending to a dying friend, saw a female figure enter the room whom she did not recognize. The figure vanished. Later, the young lady met the mother of her friend and was startled to recognize in her the apparition. Likely, the patient was thinking of her mother, and the origin of the phantom was, again, a case of thought transmission. But it is not always possible to explain apparitions this way.

I will cite an old case—yet among the best supported by evidence because it was unanimously attested by seven people. On June 3, 1691, a woman named Maria Goffe lay mortally ill in her father's house several miles from Rochester, where her two young children were. She was resigned to dying, trusted in God's mercy, but was tormented by the pain of not seeing her children again. She pleaded to be brought to them—even tied on the back of a horse. It was impossible. At 11 p.m., she expressed to a clergyman her faith in God and her sorrow at not being able to see her children. Between midnight and 2 a.m., she fell into a deep sleep, resembling death. She awoke in the morning and told her mother that she had been to Rochester and seen the children. Her mother assumed it had been a dream or delirium. But Mrs. Alexander, the widow who was caring for the children in Rochester, reported that around 2 a.m., she saw the figure of Maria Goffe come out of the room where the elder child slept, come to the bed where she herself lay with the younger one, and stand there moving her lips without uttering a sound. Mrs. Alexander spoke to the ghost, which did not respond and then left. She hurriedly dressed, went outside, saw nothing more, and knocked at a nearby friend's house, where she reported the event—though she was not believed, even as she declared herself ready to swear on the Gospel. Maria Goffe's parents, her nurse, the widow Alexander, and the people in the house where she went immediately after the vision—all testified to what they had seen and heard, thus reconstructing the remarkable event in full, without contradiction. Despite this, I



know that few will believe it. Faced with phenomena that cannot be explained by the known laws of nature, man either denies them outright or attributes them to the momentary intervention of benign or malignant forces, superior and external to nature.

With the decline of belief in the supernatural came absolute skepticism—the denial of miraculous phenomena prevailed. Yet, since faith in the divine is not dead, I am certain that while very few may be willing to believe in the bilocation of Maria Goffe, perhaps a few more will believe—as I do—that Saint Ambrose, while celebrating Mass in Milan, bowed his head in sleep at the altar for three hours and, upon waking, told the people he had been present at the funeral in Tours of Bishop Martin, whose death had not yet been announced in Milan. A few more may believe what is told about Saint Alphonsus Liguori. On the morning of September 21, 1774, after celebrating Mass, Alphonsus fell into a kind of lethargy. He remained unmoving in his armchair, did not speak, ate nothing that day and the next, until late on the third day. Then he appeared to wake up and, seeing his astonished household around him, said: “What’s the matter?” “Why,” they replied, “you haven’t spoken or eaten in two days! You’ve shown no sign of life!” “You’re right,” Alphonsus said, “but don’t you know that I was with the Pope, who is now dead?” Later, news arrived that Pope Clement XIV had died in Rome on September 22 at 8 a.m.

Monsignor Calabiana, Archbishop of Milan, used to recount that while he was a student in the Turin Seminary, a fellow student named Denina, while reciting a school composition, fell into a stupor and, upon recovering, exclaimed: “My father is dead!” The father had been ill, though not thought dangerously so. Soon afterward, the news of his death arrived.

IX.

The truth that flashes from these marvelous events is the fundamental dogma of all religions: the dualism of the human person, the existence in man of a principle distinct from the body and of a different nature. In the case of Maria Goffe, and in many other similar accounts, one also glimpses the hidden organizing power of this principle, which enables it to form for itself an ethereal body, a phantom. How this happens, how life can remain in the mortal body during the absence of the spirit, no one knows. I believe that certain faculties—still in germ but capable of extraordinary development—have been infused into human nature by God. When used by good people for good, they manifest to the glory of Him who created them; when used for evil, they become evidence of the hidden malevolence that exists in the world. So it is with hypnotic suggestion. Some, because of certain crimes committed through hypnotic suggestion, would like to ban hypnosis in the name of morality. These people forget that everything can be used and misused, and that if evil can be suggested in hypnosis by a command, it can just as easily be suggested and imposed in waking life by legitimate authority—by schools, families, and governments. Those religious individuals who too readily see in psychic phenomena—even those not immoral in nature—the action of demonic power, seem to me to be making a mistake that harms their own cause. In the most recent scientific study of apparitions and thought transmission, after a careful critical review of the facts and a modest interpretative attempt, the author admits that if the real existence of hidden human faculties superior to the normal ones could be proven, it would then be easy to explain through them the strangest phenomena of telepathy. In the absence of such proof, he says, it is better to avoid hypotheses and theories and to simply collect facts, facts, and nothing but facts. Well then, I ask: is this not, inadvertently,



a clear path indicated for spiritualists? If it truly happens that will and thought act at a distance without word or signal, that the image of a human being appears in Europe while that person is dying in America, that a man can be spiritually transported far from his body—then the best hypothesis to explain all this is a spiritualist one. If intelligence is not a function of matter, but rather the intelligent principle organizes matter, then it is possible for a man's thought to cause, without any instrument, a wound in his own body; otherwise, this is not possible. If the intelligent principle has an existence distinct from the body, it is possible for it to appear to others in a real form outside its usual limbs; otherwise, this is not possible. If the laws of matter have no power over the intelligent principle, then it is possible for the phantom of a dying person to appear at the exact same time and with the same vividness at any distance; otherwise, this is not possible.

Go forward, then—you who, by instinct, by love, by faith, hold a spiritualist conception of the human psyche—go forward in the calm and rigorous study of occult psychic phenomena. There is a science to be founded here: the science of your instinct, your love, your faith. Work on it, work on the experimental demonstration of the human soul, while we artists try to compose phantoms that reveal ours. Study man's hidden faculties in the ordinary facts of his normal life before examining the miraculous ones. Examine these facts with the European scientific spirit, but consider their nature, causes, and meaning with the scientific spirit of the East. Study the human soul not out of curiosity or intellectual pride, but with a high religious purpose. Do not begin the study of the soul without a moral preparation, lest the jockey who trains himself and his horse before a race be said to be wiser than you. The reward that awaits you is, above all, a growing inner light, a growing strength, a growing richness of higher life, a continual moral elevation—because the more one knows the spirit, the more evident and urgent the reasons to live according to the spirit become. Your reward will therefore be the certain knowledge of immortality. Do not seek it through the evocation of the dead. I respect the good faith and noble intentions of many who summon the dead to question them, and I am far from denying the mysterious facts of spiritism. But setting aside the fact that this field is still too overrun with weeds of error and fraud, I confess that I prefer to seek the science of human immortality elsewhere. I confess I do not believe in the right to summon the dead, and I take refuge in a Latin motto which sounds as if from a Church Doctor, though it is actually from an illustrious friend of mine, far from resembling any Church Doctor: Gaetano Negri.

Non credo quia impium – I do not believe because it is impious. The most certain proofs of immortality will be found in those seeds of superhuman powers that we all possess, which in most of us never manifest, whose rare and fleeting appearances fill us with awe. It will be shown that hidden in the mystery of these seeds is the promise of a future life, that their presence within us would be incomprehensible unless they were destined to develop in the future, when, as Saint John says, that which has not yet appeared shall appear in us.

It is worth being called dreamers and collectors of dreams, worth facing ridicule, in order to build on experimental foundations a spiritualist psychology such as the most powerful thinkers of the past have drawn from the depths of their minds, and the greatest poets from the depths of their hearts. Perhaps it is destiny that this edifice should rise and reach to the heavens at a time when so many sad moral ruins—both high and low—bear witness to the effects of scientific materialism, the denial of the spirit. Let the edifice rise, let it soar to the sky, and may the noblest aspirations of human nature shine from its summit, like lights upon an altar. May this light pass over the fading century and be like a beam along the path of the ascending



century—a century with the mission to exalt the spirit, to expand at dizzying speed the dominion of intelligence over matter, and to transform society through love.

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What does the Panama Canal scandal tell us about Jean-Martin Charcot's health in 1893?

(Historical Note)

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Abstract

Two months before his death, Jean-Martin Charcot accompanied the Dean of the Paris Medical School, Paul Brouardel, to England. They had been commissioned by the French courts to assess the health of Cornélius Herz, an unscrupulous financier who had fled after the company that was supposed to build the Panama Canal went bankrupt. The unpublished archives presented here reveal the degree to which the French press slandered the two Parisian medical experts. They were accused of complacency and even corruption. But Brouardel and Charcot had merely confirmed the opinion of their famous London colleagues, who had previously declared that Herz could not be moved for extradition. Brouardel's account highlights the gradual deterioration of Charcot's health; the Master had been suffering from angina and heart failure since 1890. During this final trip, Charcot had difficulty walking, like a patient with lacunar disease, and showed signs of dyspnoea secondary to recurrent pulmonary oedema. Irreversible heart failure took the life of this master and founder of French neurology on 16 August 1893.

Keywords: Charcot's health; Charcot's last trip; Cornélius Herz; Panama scandal

Introduction

By circumstance and not by choice, Jean-Martin Charcot (1825–1893), already ill, found himself involved in June 1893, less than two months before his death, in the press campaign revealing the corruption surrounding the Panama Canal construction project.



Figure 1. Jean-Martin Charcot around 1890 (private collection of the author)

Jean-Martin Charcot's state of health

In 1862, the young and slender Charcot inaugurated his department at the women's nursing home and asylum at La Salpêtrière Hospital. But by 1893, he had become quite portly, to the point of being quite fat (Figure 1). The famous Tuesday dinners at his Hôtel de Varengeville featured no fewer than seven courses and four wines (Thuillier 1993)! Moreover, Charcot had always been a heavy smoker. Léon Daudet (1868–1942) left us an account of the first warning signs, testifying to the deterioration of his Master's health during the dinner on 31 December 1890: "It happened after a particularly cheerful and lively New Year's Eve party at his home on Boulevard Saint-Germain. He appeared relaxed and affable, happy to see all the young people around him, whose fancies amused him. Suddenly, as he returned to his room, he let out a low groan, put his hand to his chest. His face suddenly pale, he fell wordlessly into a chair. One of us rushed to get Dr. Damaschino [François Damaschino, 1840–1889], who lived nearby. I hurried across the way to get Potain [Carl Potain, 1825–1901]. It was two in the morning. My Master, on his way to bed, opened the door in his nightshirt, a candle-holder in his hand. In a

few words, I let him know what had happened. He muttered his customary ‘Ah! Devil take it!’ pulled on a pair of trousers, a jacket, and a fur coat, then flipped up the collar over a white silk scarf. He dashed down after me, four steps at a time, into the freezing night. As soon as he reached his illustrious colleague, he motioned with his hand that they be left alone. A quarter of an hour later, he came out with a short prescription in hand: “It’s nothing, really, just a bit of an upset stomach”. However, I noticed his eagerness to reassure us and a certain way of plunging his hands into his pockets and widening his eyes, which indicated that he was seriously concerned. As I accompanied him back to his home, he said to me in a low, barely audible voice: ‘It was necessary to reassure them. He thought it could be *angor pectoris*...’. I don’t know why, at that moment, he used the Latin term rather than the French term, ‘*angine de poitrine*’. Then, after a moment of silence: ‘He was not wrong’ . . . I was terribly moved; the death warrant had been pronounced by the infallible Master of the heart’s ailments. ‘How long, Sir?’ I murmured, shivering with cold and fright. He put his hand on my shoulder, with an infinite kindness all his own. Under his breath, he said: ‘Two years, two and a half years at the very most’” (Daudet 1915, 99-101).

FACULTE DE MEDECINE DE PARIS
 187
 administrateur
 350
 125
 60
 Mon cher Monsieur,
 Je suis actuellement en
 peu soulagé et j'ai besoin
 d'un temps de repos. Je ne
 pourrai pas me lecon, demain
 lundi (à la Faculté) ni
 plus ni mercredi (à l'école
 Pratique); j'en reprendrai
 vendredi.
 Croyez à mes sentiments
 distingués
 (Charcot)

Figure 2. Handwritten letter from Charcot to the administrator of the Faculty announcing that he is ill and unable to teach. Undated, probably around 1875. (Archives nationales)

During the following months, there were repeated attacks. Once he had to interrupt one of these Friday Lessons. In addition, he suffered several brief fainting spells. At that point, Madame Charcot wrote to the Dean of the Paris Medical School to say that her husband could no longer teach (Archives nationales a) (Figures 2 & 3 & 4).

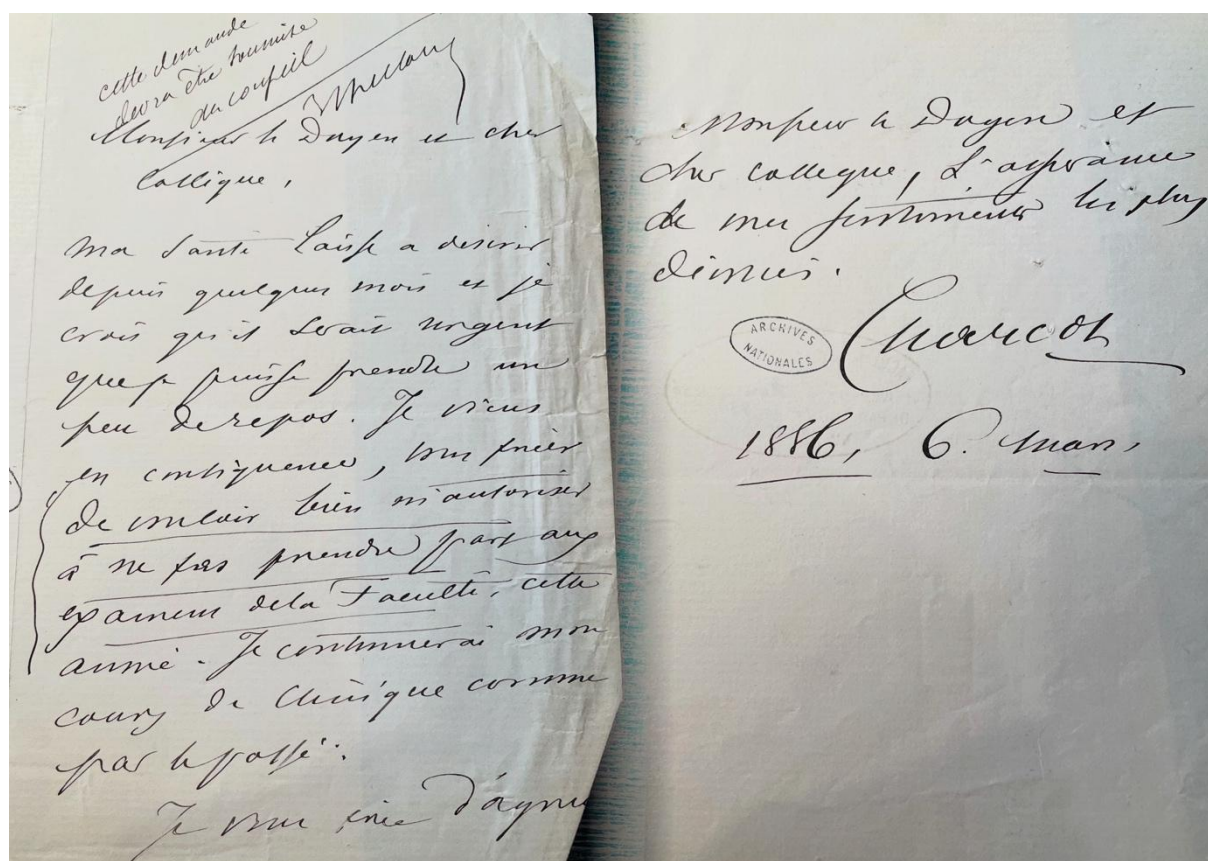


Figure 3. My health has been poor for several months now, and I think it's urgent that I take some time off. Handwritten letter from Charcot to the administrator of the Faculty (1886, March 6). (Archives nationales)

An American from Boston, Charles Francis Withington (1852–1917), described his visit to La Salpêtrière Hospital in May of 1893 this way: “We notice, with regret, that while his intellectual strength has shown no abatement, his physical and nervous forces are greatly shattered. His gait is shuffling and unsteady. He walks with difficulty and finally totters to his carriage and is driven away. Can it be that, as has curiously happened to so many prominent medical men, he will fall a victim to one of those diseases to which he has devoted his special life-long attention? If so, we feel that his self-diagnosis will be accurate, however futile his treatment” (Withington 1893).

In his biography of Charcot, Fielding Hudson Garrison (1870–1935) added: “He became so sedentary that his very gait was regarded as that of a man who could not walk properly because he had forgotten how. With bent back and head thrust forward, he seemed to propel himself by short, quick, shuffling steps. Toward the last, when he mimicked the propulsion in paralysis agitans, he seemed to be the patient. His approach to his carriage became a painful, tottering progress” (Garrison 1925).

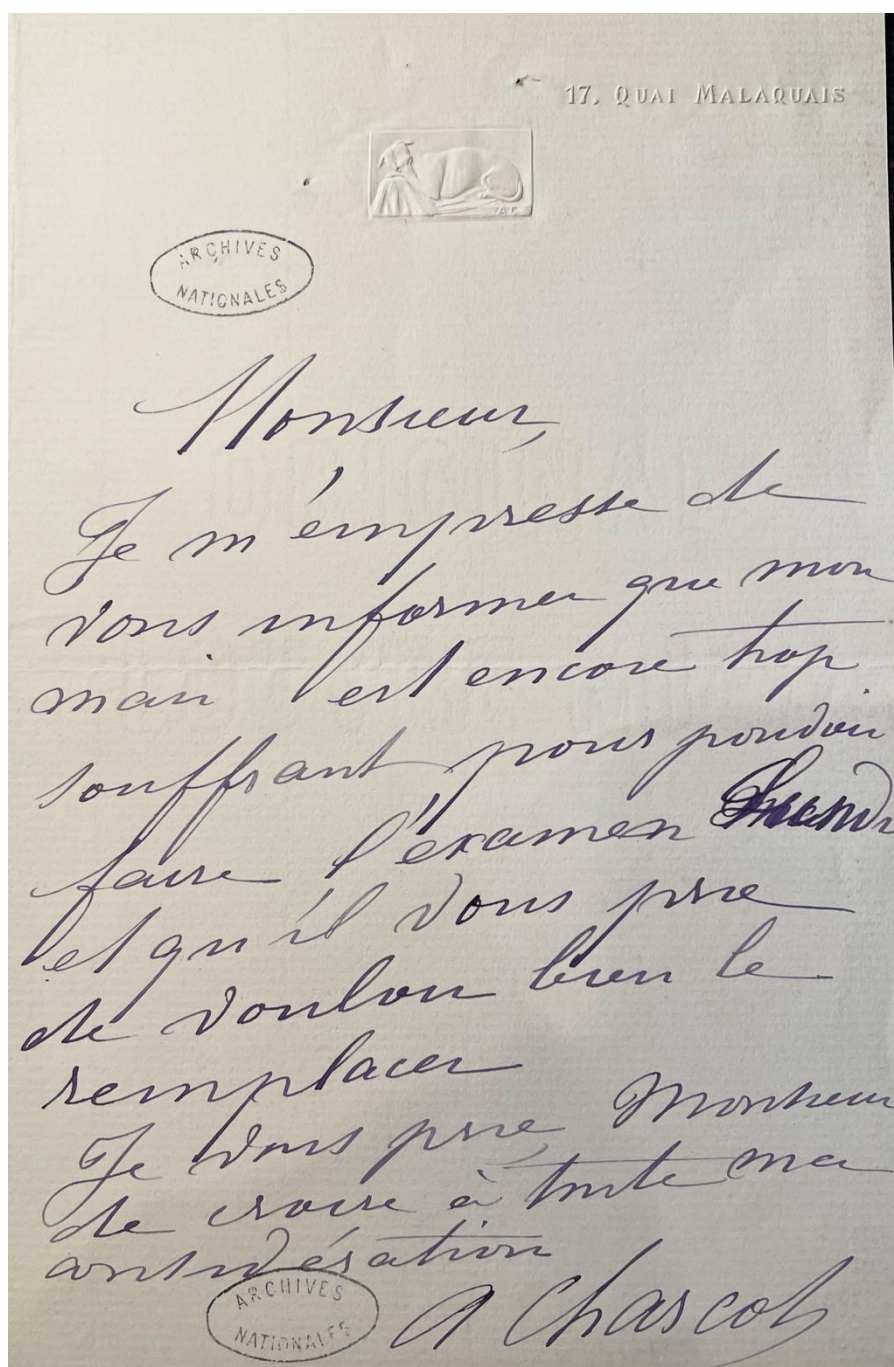


Figure 4. I hasten to inform you that my husband is still too ill to take the exam on Monday and he kindly asks you to replace him. Signed Mrs. Charcot. No date, probably around 1880. (Archives nationales)

Jane B. Henderson from Brussels spent a few months in Paris at the end of 1892 as a student and noted: "Regarding his personal appearance, the first thing that struck me was the evident fact that he was getting old. He was not tall, and the round back and drooping shoulders took off some of his original height. His well-shaped head, covered with white hair, and his features, which were supposed to bear a striking resemblance to those of Napoleon I, are sufficiently well-known to obviate the necessity of any further description. His movements were active, but

his gait was the short, quick step so frequently to be noticed in old people. His speech was clear and distinct, but he was troubled with a cough which appeared to prevent him from making any effort to raise his voice, so that those who had not been fortunate enough to get near the front were apt to be disappointed when they could not hear well enough to follow the remarks. M. Charcot had great powers of imitation, and would at times walk across the platform to show the gait characteristic of various nervous disorders, or describe with his hands different forms of choreiform movements, but when he was describing the movements seen in paralysis agitans, the symptoms were so pathetically in harmony with his own appearance that one was tempted to believe that he was himself the patient and not merely the lecturer giving a demonstration” (Henderson 1893).

These accounts of Charcot’s gait may evoke the short steps of a patient with lacunar disease, but without any apparent intellectual deterioration. As to his little cough, it may have been related to incipient pulmonary oedema. Charcot suffered from angina pectoris, probably due to aortic stenosis, which was the likely cause of his syncopal episodes and/or transient ischaemic attacks, all of which led to episodes of left ventricular heart failure, i.e., acute pulmonary oedema.

The Archives Nationales hold several letters from Charcot, as well as two letters from Madame Charcot to the directors of the Paris Medical School, stating that her husband was indisposed and unable to teach a course or take part in a thesis jury. These letters were sent from the 1870s to the end of the 1880s (Archives nationales a).

In 1892–1893, when Charcot’s health was seriously failing, *La Libre parole*, an anti-Semitic daily run by Édouard Drumont (1844–1917), led a campaign to expose corruption in the construction of the Panama Canal.

“Panama scandal”

The entrepreneur and diplomat Ferdinand de Lesseps (1805–1894) oversaw the design and digging of the canal across the Isthmus of Suez, linking the Mediterranean and the Red Sea. The Suez Canal was inaugurated in November 1869. Ten years later, de Lesseps conceived the idea of constructing a passage through the Isthmus of Panama to link the Pacific and Atlantic Oceans. While the obstacles to be overcome may seem comparable to those encountered in Suez, the climate was quite different, both meteorologically and politically. For although the Central American region was then under Colombian rule, the powerful North American neighbour had, in 1823, proclaimed the “Monroe Doctrine”. By this principle of foreign policy, the United States intended to condemn any intrusion or intervention by another country in the affairs of the Americas (Manigat 1973). By deliberately underestimating the amount of investment required and the duration of the work, de Lesseps imagined that it would be easier to gain acceptance for his project from financial investors. The “*Compagnie universelle du canal interocéanique*” was founded for this purpose. It needed to obtain authorisation to issue a “lottery loan”¹ to attract the savings of the French public, following the model of the similar, successful operation to construct the Suez Canal. Jacques de Reinach (1840–1892), a banker, and Cornélius Herz, an opportunistic financier, both Frenchmen of German-Jewish origin, were

¹ A lottery loan is a type of bond issue in which the issuer offers, in addition to the stated interest rate, a chance of winning an extra payment awarded by lottery.

recruited to lobby lawmakers to secure a favourable vote in both chambers (Bouvier 1964). The first loan of this type was incompletely subscribed in 1886. It was clear by 1888 that it was not enough to cover the construction costs. A second loan of this type was proposed in 1888. A great deal of reluctance arose, obliging the two lobbyists to engage in ever more corruption and to bribe an ever-larger number of parliamentarians to obtain a favourable vote. However, this did not prevent the company from going bankrupt on 4 February 1889, ruining several thousand small savers. In 1891, the State ordered an investigation into breach of trust and fraud (Conrad 2015). In 1892, four deputies and four senators were brought before the courts. The press campaign revealed the corrupt methods used by de Reinach and Herz. After de Reinach's death, probably by suicide, on 19 November 1892, the courts wanted to question Herz. But he had hastily left Paris and taken refuge, first in London, then in Bournemouth, a seaside resort on the southern coast of England, in Hampshire. The French courts then issued a request for his extradition. In retrospect, the press campaign launched by the extreme right seems like a rehearsal for the anti-Semitic agitation surrounding the Dreyfus Affair, which immediately followed it.



Figure 5. Cornelius Herz. (Public domain).

Who was Cornélius Herz?

Cornélius Herz was born on 3 September 1845 in Besançon (eastern France). His parents were German Jews who had taken refuge in France (Figure 5). Unable to lift themselves out of poverty, they immigrated to the United States, where they were naturalised. After growing up across the Atlantic, Herz fled the American Civil War by leaving for Germany, where he began his medical studies at Heidelberg (1864–1866). He then spent a few months in Vienna, which he left after the Austrian defeat at Sadowa on 3 July 1866. He arrived in Paris in October 1866 to continue his studies (Mollier 2021). He passed the “*externes*” examination (for students not yet residing in the Paris hospitals) on 23 December 1868 (Archives AP-HP a). He was assigned a clinical placement at the Hospice de Bicêtre in 1869, then worked as a temporary resident at the Quatre-Mares Asylum (Rouen) in 1870. Upon the recommendation of the renowned alienist Henri Legrand du Saulle (1830–1886), Herz assisted the alienist Édouard Dumesnil (1812–1884), substituting for an absent colleague. But, after borrowing money from both patients and medical staff at the asylum, the discovery of his liaison with a laundress led him to flee (Figure 6) before his official dismissal (Cabanès 1898, Bourneville 1893).

During the Franco-Prussian War, he enlisted on 20 November 1870 and was named assistant medical officer to the Franco-American ambulances of the Loire army. He was assigned to the staff of General Alfred Chanzy (1823–1883) because of his polyglot language skills. Leaving the army on 12 March 1871, Herz was appointed as a temporary intern at the Berck Hospital by the Assistance Publique (public hospital system in Paris); due to the war, the Assistance Publique had been moved to Versailles. However, he was dismissed and removed from the AP-HP staff list on 8 August 1871, after his affair with a nun at the hospital and the debts he had accumulated were discovered (Archives AP-HP b).

A Monsieur le Directeur de l'asile de Quatre-Mares.

Monsieur le Directeur,

Si mon cas mérite d'être appelé devant la Commission de Surveillance, je donnerai ma démission comme interne immédiatement.

Tout en donnant ma démission, je demanderai cependant le privilège d'adresser, à cette commission, une communication sur les événements qui viennent d'avoir lieu.

Veuillez agréer, Monsieur le Directeur, l'assurance de ma gratitude et de mon dévouement.

ARCHIVÉS
NATIONALES

Cornelius Herz.

Salle de garde le 27 février 1870.

Figure 6. On February 27, 1870, Cornelius Herz sent his letter of resignation as an intern to the director of the asylum of Quatre-Mares (Archives nationales).

Herz immediately embarked for Chicago, where his parents lived. Claiming that all his certificates proving his doctoral degree in medicine had been destroyed in the huge fire that ravaged Chicago on 9 October 1871, he took advantage of the distress and confusion to open a medical practice there, even though he did not have any of the required qualifications (Anonyme 1871). For obscure reasons involving fraud and illicit cohabitation, he hastily left Chicago in April 1873. He then found a job as a physician at Mount Sinai Hospital in New York, from which he was dismissed at the end of 1873, not only because he failed to provide a genuine French doctoral diploma, but also because of his poor medical skills (Mount Sinai 1869). This failure led him to enrol at the Medical College of Northwestern University, where he received his medical doctoral degree in 1875 (Mollier 2021). Armed with this valuable

credential, he entered into partnership with an elderly physician in San Francisco, where his family had established a business. He spent three years there. He innovated by treating his patients with electricity, a novelty that was in vogue at the time. His medical and social activities enabled him to engage in financial dealings, which, unfortunately, only led to further debts (Chicago Medical College 1875). He nevertheless learned, on his own, the practice of lobbying. On 28 September 1877, he returned to France with plans to set up telephone and electrical systems, which were still virtually unknown on the French side of the Atlantic. He demonstrated them at the Universal Exhibition in Paris in May 1878. For a dozen years, Herz established business contacts with both engineers and politicians to promote the patents he had brought back from the United States. He also developed other inventions related to electricity. Employing his interpersonal skills and his gift of the gab, he quickly became very wealthy, living the high life in the affluent neighbourhoods that were rapidly expanding in western Paris (B.G 1893). Thanks to the reputation he had acquired, he was called upon to ensure the success of the loan for the excavation of the Panama Canal.

Cornélius Herz's state of health

On 20 November 1892, the day after his partner's death, Herz went into exile, first briefly in London, then in Bournemouth at the Tankerville Hotel. On 18 January 1893, the French courts requested his extradition. Herz was notified of his arrest by the English authorities on 19 January 1893; he was bedridden at the time. He then provided a certificate stating he was physically unable to travel to London or to be moved at all. William Frazer (1851–1905), Herz's physician in Bournemouth, received Sir Andrew Clarke (1826–1893), who had been commissioned to give an expert opinion on 12 April 1893: "We found him in a state of extreme constitutional prostration, his condition being markedly aggravated by mental agitation and by physical exertion. The patient's urine contains large quantities of sugar as well as traces of albumin. The action of the heart is rapid, feeble, intermittent, and readily disturbed and still further enfeebled" (Archives nationales b) (Figure 4). Then other British medical luminaries examined Herz, such as Sir Thomas Lauder Brunton (1844–1916), David Ferrier (1843–1928), and Malcolm Macdonald McHardy (1852–1913). All these experts concluded that Herz was not transportable and could not appear before the court with a view to extradition (Anonyme 1893). The French press never ceased to ridicule these experts and their alleged servility (Pelletas 1893, Royer 1893). The French government thus sent the Dean of the Paris Medical School, Paul Bouardel (1837–1906), to examine Herz and determine whether he could be brought back to mainland France (Figure 7).

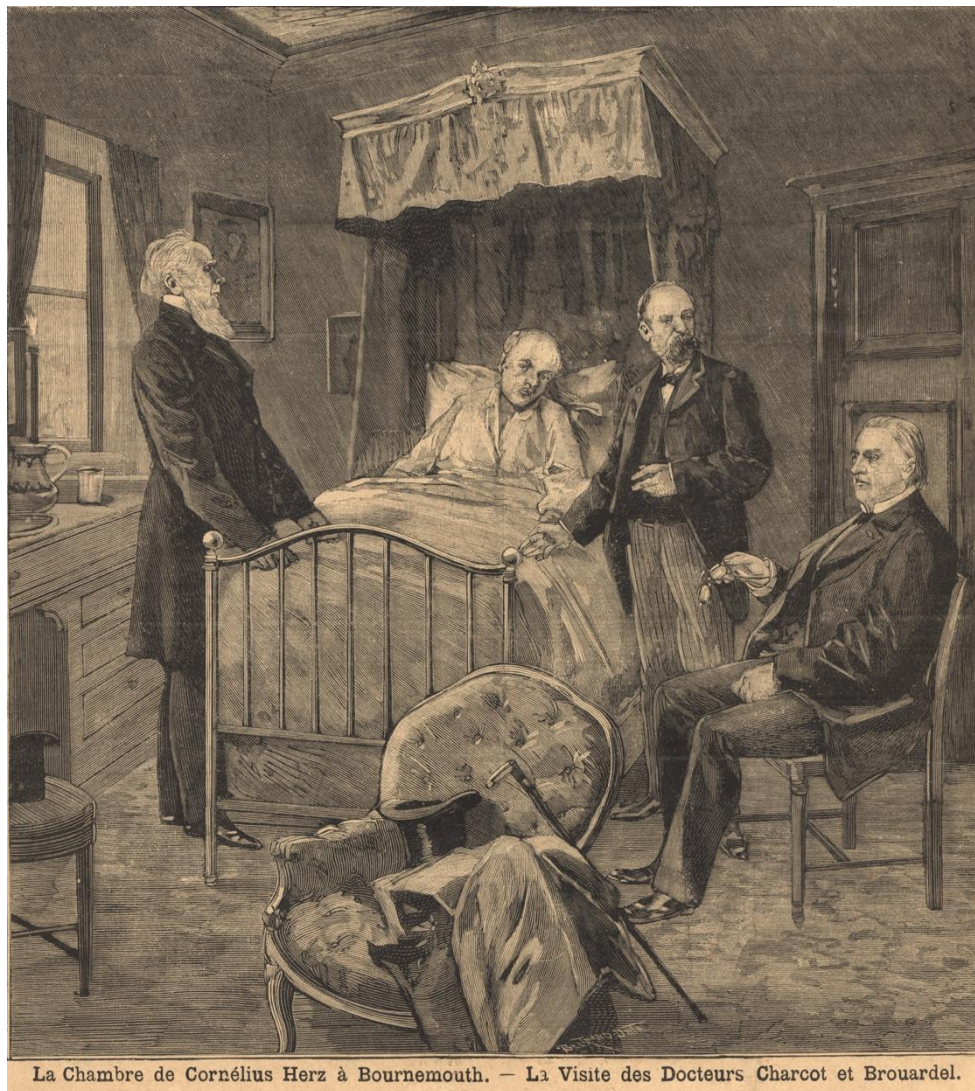


Figure 7. Dr Frazer, Professors Brouardel and Charcot at Hertz's bedside. *Le Petit Parisien* 1893, July 2 (Private collection of the author).

Horace Bianchon, pseudonym of Maurice de Fleury (1860–1931), then a columnist for the newspaper *Le Figaro*, published on 5 October 1893 the interview he had conducted with Brouardel, which recounted his visit to Bournemouth in the company of Charcot (Bianchon 1893). He began by situating this visit within the context of the ongoing press campaigns: “Two rather unflattering hypotheses emerged: one suggested that Mr. Charcot and Mr. Brouardel were victims of a sleight of hand, with a lookalike substituted for the real Cornélius; while the other suggested that the two French physicians showed at least servile compliance with their country’s government, perhaps motivated by self-interest”.

Traduction

Bournemouth, 11 Avril 1893

Je certifie par les présentes avoir visité
aujourd'hui le D^r L. Herz, l'avoir trouvé en état
de grande prostration et obligé de garder le lit.
L'action du cœur est faible et intermittente;
parfois des attaques d'angine éprouvent sérieuse-
ment le malade et épuisent ses forces. La rate
est toujours beaucoup grossie et extrêmement
douloureuse (au toucher). On ne peut exercer de
pression sur cet organe sans provoquer de fortes
nausées suivies de vomissements.

Le diabète a continué d'affaiblir le
malade et il se ressent beaucoup de cette
atteinte portée à son système. Je ne vois pas de
possibilité prochaine pour le D^r Herz de
quitter le lit sans courir des risques sérieux.

Signé:
William Fraser

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Figure 8. French translation of the certificate written by Dr. Frazer regarding the contraindication for transporting Herz. (Archives nationales F/7/15969/2).

Brouardel gave a detailed and factual account: “On 26 June, I received from the Minister of Foreign Affairs the invitation to the journey of which you are aware. I considered it advisable not to undertake the journey alone. So, I asked Potain [Carl Potain] to accompany me, but he declined, having been Cornélius Herz’s physician until the time of his flight. Then Bouchard [Charles Bouchard, 1837–1915] refused the invitation because he had been on bad terms with Herz for several months. Charcot gave in to my pleas; at least he was sure he had never met the famous wheeler-dealer. At nine o’clock in the evening, we arrived in Bournemouth, and without having dinner, we went straight to the Tankerville Hotel. Three renowned English physicians awaited us: David Ferrier, Broadbent [William Broadbent, 1835–1907], and Andrew Clark of the Royal College of Physicians. These gentlemen did not wish to accompany us to see the patient and merely offered to provide us with any further information we might require . . . We found Cornélius Herz in his bed; he looked very ill. Formerly a stout man, he had become very thin. He had a rather handsome Jewish face, in the style of Rembrandt, with a curly beard that had come in since his illness and a domed forehead. His mind was perfectly clear, and his voice quite firm (Figure 8).

He greeted us, then, turning to my colleague, said, ‘Don’t you recognise me, Mr. Charcot?’. And Charcot asserted he had never seen him before. ‘But’, continued Cornélius, ‘in 1867 you were substituting for Dr. Marotte at La Pitié Hospital, and I was a *roupiou* [non-resident medical student] in the department. I can still see you making a drawing of a clot in the femoral vein with embolism in the pulmonary artery for Dr. Ball’s thesis [Benjamin Ball, 1833–1893]; and I can hear you saying, ‘It’s a clot shaped like a snake’s head’. Charcot had to acknowledge the accuracy of this account, and both he and I believed that a false Cornélius could not have been so precise. Moreover, our English colleagues had just provided us with a detailed observation of the disease, recorded daily since Herz’s arrival in Bournemouth. To question the identity of our patient, one would have to suspect these three men, who are the pride of English science, of fraud and abetment” (Bianchon 1893).

Herz was inventing stories, as he never worked under Marotte. He was probably just an occasional listener to a lecture given by Charcot, not in 1867, but in 1857, when Charcot was a physician at the Central Office. Not yet having his own department, he was filling in for absent hospital physicians. Herz must have heard Charcot talk about pulmonary embolism, as Charcot and Benjamin Ball (1833–1893) published the first description of this condition in 1858 (Charcot 1858).

According to Brouardel, Herz then explained that after his mother was diagnosed with diabetes, he and his father were diagnosed with the same disease: “Cornélius excreted 310 grams of sugar in 24 hours. Potain had been treating him . . . He caught a chill during an ill-advised carriage ride. In this diabetic patient, this brought on an acute aortitis, an inflammation of the great artery issuing from the heart; from this, countless clots arose—just like those Charcot had drawn in 1867—together with several emboli. One of these had produced a cooling of the left side of the body as compared with the right. The patient had sugar and albumin in the urine” (Bianchon 1893).

In their expert report submitted to the authorities, Brouardel and Charcot specified that the patient was “in a state of weakness that prevented him from standing or sitting up in bed without the risk of immediate fainting” (Archives nationales c). The patient, only forty-eight years old, looked at least ten years older.

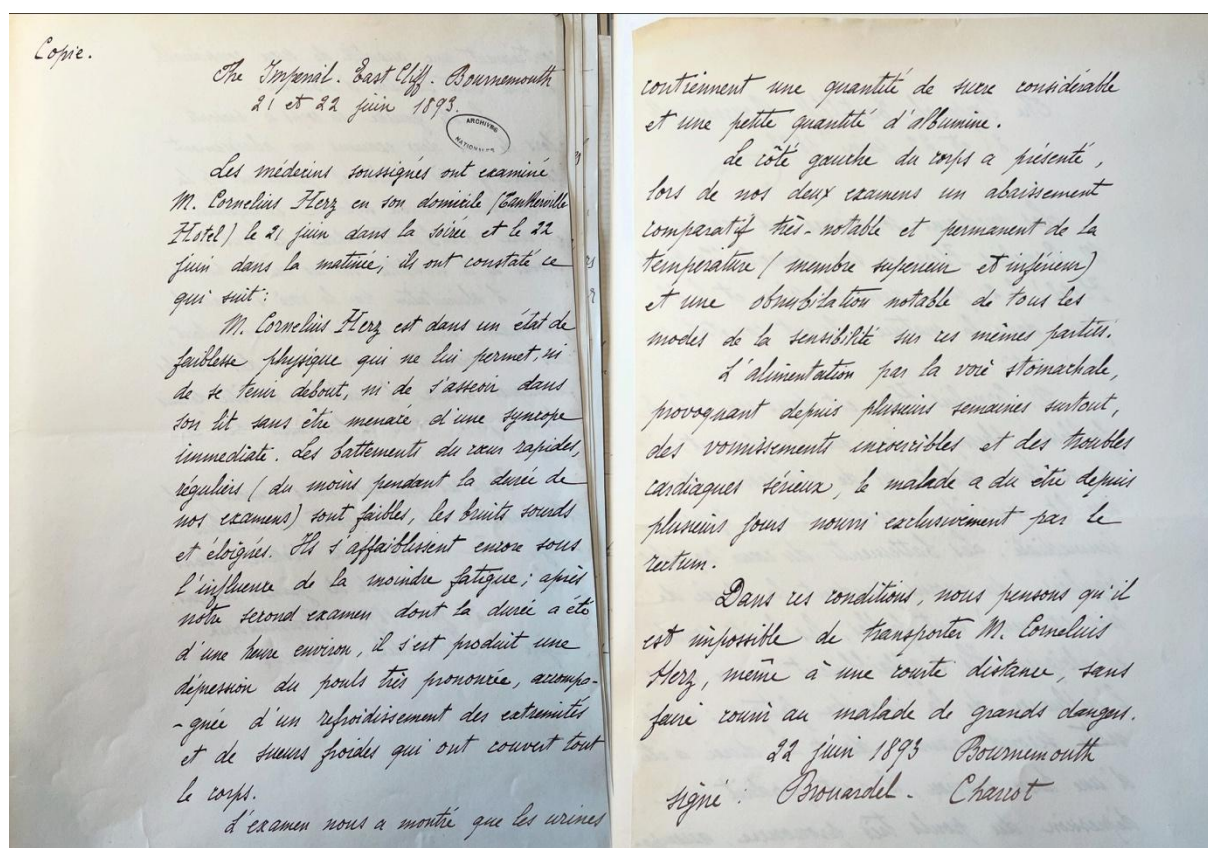


Figure 9. French translation of the certificate written by Charcot and Brouardel, regarding the contraindication for transporting Herz, on 1893, Juni 21 and 22.

Brouardel then commented on the observation of significant albuminuria: “He exhibited all the symptoms of gastro-intestinal uraemia. These symptoms were so grave that we were unable to help Herz sit up in bed in order to auscultate the posterior chest. As Andrew Clark had said, none of us, because of the uraemic symptoms and the clots resulting from the aortitis, would have dared to take responsibility for moving Herz to the next room. That evening, our examination lasted an hour and a half” (Bianchon 1893). The following day, Brouardel and Charcot re-examined the patient at length, performing the biological analyses themselves. Charcot then refused to examine one of Herz’s daughters, fearing he would be accused of corruption if he accepted payment. Brouardel continued: “Charcot and I spoke at length in hushed tones in the window alcove; at one point, since Charcot was feeling short of breath, he opened the window, and we continued talking, deeply absorbed in the matter at hand . . .” (Brouardel 1893a) Charcot was already showing symptoms of dyspnoea secondary to heart failure. Following their examination, the two Parisian experts concluded, like their London counterparts, that Herz could not be moved. But despite the severity of his condition, improvement remained possible through “absolute rest and a strictly milk-based diet”. They believed this could help dissolve clots, relieve uraemia, and reduce albuminuria. Finally, Brouardel did not fail to note that Charcot died without ever having received any reimbursement for his travel expenses.

Brouardel would return to examine Herz in Bournemouth on 2 November 1893, accompanied this time by Georges Dieulafoy (1839–1911) and a former resident who served as translator, Charles Barbé (1854–1906). At the request of the President of the Council (roughly equivalent

to today's French Prime Minister), who was seeking to quell the controversy, Brouardel and Dieulafoy attempted to read their report on Herz's examination before the Academy of Medicine. Their efforts were in vain; the academy members refused this clear violation of medical confidentiality. The text in question, published in a few medical journals, informed the authorities that Herz's health had improved. They now considered him fit to be examined in London with a view to his extradition (Brouardel 1893a, Brouardel 1893b). Herz died on 6 July 1898 without ever being brought back to France. His death came five years after that of Charcot, who died on 16 August 1893, and Andrew Clark, who died on 6 November 1893. Some journalists were quick to point out this apparent paradox: the patient was more resilient than the physicians who came to examine him.

Conclusion

When Charcot set out for England, his last voyage abroad, his health was already very poor. During Herz's examination, he experienced shortness of breath and had to open a window to get some air. Once back in Paris, the press campaigns, which were disparaging towards him and Brouardel, must have hurt his pride. He was a man of integrity who had not even been reimbursed for his travel expenses to Bournemouth. Did the emotional repercussions exacerbate the extreme fatigue that led Madame Victoire-Augustine Charcot (1834–1899) to organise a holiday for him in the Morvan region? She invited a few students who were regulars at the Tuesday dinners: Isidore Straus (1845–1896), Georges Debove (1845–1920), and René Vallery-Radot (1853–1933). On the night of 16 August 1893, Charcot died at the age of sixty-seven from acute pulmonary oedema, evidence of left ventricular failure due to an infarcted myocardium. According to an anecdote, Herz did not fail to send a wreath of flowers to join in the mourning of the Charcot family.

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Jean-Martin Charcot and Alfred Vulpian: A Remarkably Productive Friendship and Collaboration in the Realm of Medicine

(Historical Note)

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Abstract

The two ranking physicians were of the same age group. Jean-Martin Charcot (1825-1893) and Alfred Vulpian (1826-1887) closely collaborated at the Paris hospital La Salpêtrière as from 1862 and for eight successive years. The latter then went his own way in various hospitals, the former made his whole career at La Salpêtrière. The clinical and anatomopathological description of recently discovered diseases (a method termed as anatomoclinical) and foreign medical literature made real headway. Medical knowledge was also prompted by publishing lessons and lectures as well as presenting patients. Laboratory research rapidly spread. They were both fully attentive to the scientific Societies to which they became members as later to the national Academies of medicine and sciences.

Keywords:

anatomoclinical method; history of neurosciences; microscope; multiple sclerosis; progressive ataxia; shaking palsy

Introduction

Throughout the first half of the 19th century, the macroscopic anatomy of diseased bodies—autopsied and carefully drawn—was developed. However, this did not allow for a tissue-level study such as that which the microscope, recently perfected by the construction of achromatic lenses, would make possible in the second half of that century. The meeting of two young doctors during their internship in the middle of this century, and their rapid friendship, would be at the origin of an exceptional and complementary collaboration, greatly benefiting the medical discoveries that they would go on to produce throughout their lives, entirely devoted to science.

A Chance Encounter

Appointed through the same competitive examination for the *Internat des Hôpitaux de Paris* in 1848, they served as internes. J.-M. Charcot worked in 1850 at the La Pitié hospital¹ in the medical service of Professor Pierre Adolphe Piorry (1794–1879). A. Vulpian was in this hospital in 1852; yet in his 1887 speech, J.-M. Charcot recalled their meeting 37 years earlier in that hospital and the fact that they became friends (Charcot 1887). They did not know that a few years later, after being appointed *professeurs agrégés*, they would become heads of two neighboring medical services at La Salpêtrière in early 1862. As J.-M. Charcot emphasized in his speech to the *Académie des sciences* upon the death of Alfred Vulpian:

“My colleague, at that time already, was attached to the *Muséum d’Histoire naturelle* as an assistant-preparer under Flourens,² under the direction of M. Philipeaux.³ ... One sees that from the very beginning of his career, Vulpian had to divide his activity between the laboratory and the hospital ward... One can say that the great hallmark of Vulpian’s scientific life lies in this intimate union of the physician and the experimenter. Thus he must be considered one of the founders, one of the principal promoters of this method... which recognizes and proclaims loudly the superior rights of the clinic; it alone can safely guide the movement leading to the scientific renewal of Medicine through Physiology.” (Charcot 1887).

¹ The former *Hôpital de La Pitié*, rue Lacépède in the 5th arrondissement of Paris.

² Professor Pierre Flourens (1794–1867), physician and physiologist, renowned for his research on the nervous system at the *Muséum d’Histoire naturelle* in Paris.

³ Dr. Jean-Marie Philipeaux (1809–1892) was a friend of Alfred Vulpian’s impoverished family. Vulpian had lost his father at the age of three and had to work to support his mother and six siblings, hence the recommendation for a paid position at the *Muséum d’Histoire naturelle*, where J.-M. Philipeaux was assistant to Professor Pierre Flourens. A. Vulpian would serve as preparer from 1850 to 1867. For the same reason, he also taught natural sciences for many years at the *Collège municipal Chaptal*.

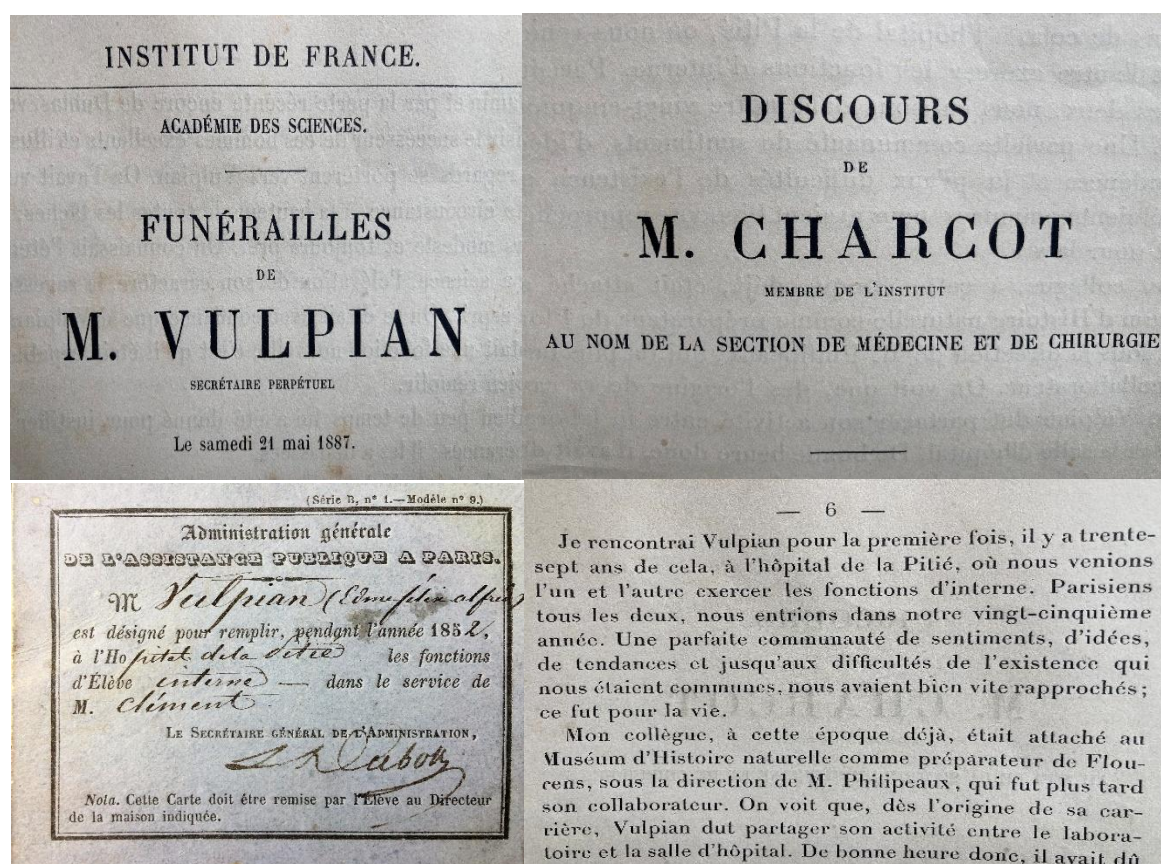


Figure 1. J.-M. Charcot's speech at the *Académie des sciences* [Academy of Sciences] and, at lower left, the appointment card of A. Vulpian as intern at the *Hôpital de La Pitié* in 1852. (Family Archives)

Thus, if J.-M. Charcot had received training in the use of the microscope during his internship rotations, he had not spent months in a research laboratory with animals, which he would have respected too much to sacrifice at the end of physiological experiments, as A. Vulpian did at the *Muséum d'Histoire naturelle*, studying tissues under the microscope every day. Chance therefore brought together two brilliant clinicians who would work side by side in the mornings at the hospital: one developing his private practice in the afternoons at his home, helped by his former mentor Professor Pierre Rayer (1793–1867), who recommended him to wealthy patients; the other focusing on preparing his lectures at the *Muséum d'Histoire naturelle*, especially when in 1864 he was called upon to substitute for Professor Flourens in the Chair of Comparative Physiology until 1866. That year, he published his comprehensive work *Leçons sur la Physiologie générale et comparée du système nerveux* [Lessons on the General and Comparative Physiology of the Nervous System] (Vulpian 1866a).

Their two doctoral theses in 1853 illustrate these differences: J.-M. Charcot focused on *La goutte et les rhumatismes chroniques* [Gout and Chronic Rheumatisms] (Charcot 1853), while A. Vulpian chose an *Essai sur l'origine de plusieurs paires des nerfs crâniens (3e au 10e)* [Essay on the Origin of Several Pairs of Cranial Nerves (3rd to 10th)], based on anatomical sections of the brainstem viewed under the microscope (Vulpian 1853).

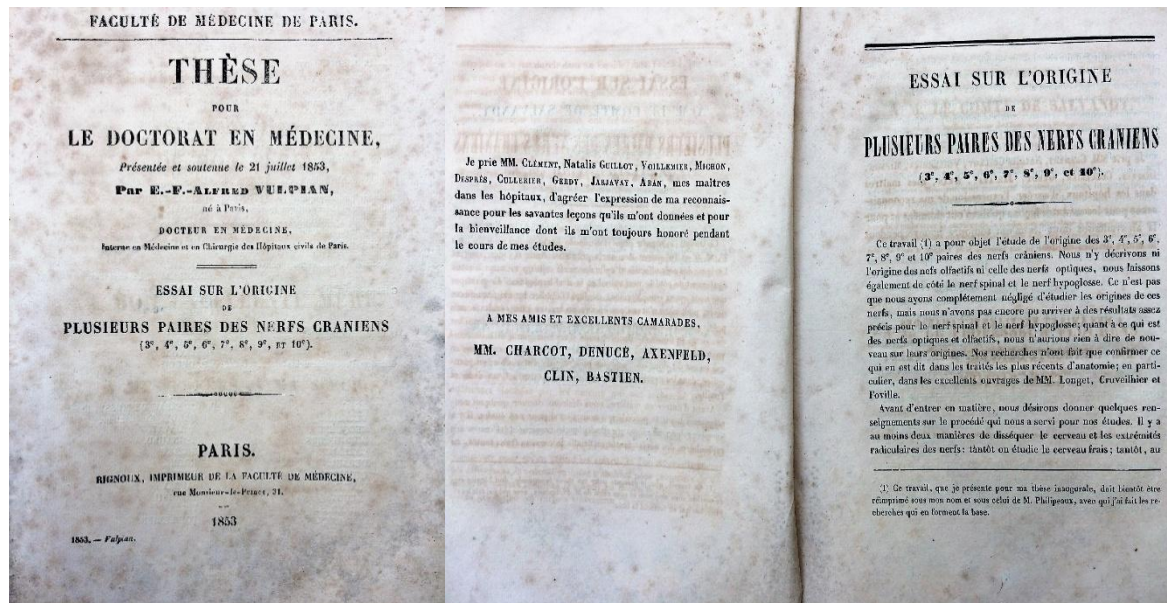


Figure 2. A. Vulpian's thesis, dedicated first to J.-M. Charcot. (Family Archives)

Their Joint Works

Their first joint (co-signed) publication dates from 1853: *Observation de pyélonéphrite avec distension rénale* [Observation of Pyelonephritis with Renal Distension] (Charcot and Vulpian 1853); the following year: *Cas d'ulcères simples de l'estomac, suivis de rétrécissement pylorique et de dilatation stomacale* [Case of Simple Ulcers of the Stomach, Followed by Pyloric Stenosis and Gastric Dilatation] (Charcot and Vulpian 1854a) and *Altération spéciale de la table interne du pariétal gauche, pertes de connaissance et accès épileptiformes dans le côté droit du corps, revenant par accès* [Special Alteration of the Inner Table of the Left Parietal Bone, Loss of Consciousness and Epileptiform Attacks on the Right Side of the Body, Recurring in Episodes] (Charcot and Vulpian 1854b). Later: *Coloration bronzée de la peau dans un cas de phthisie pulmonaire; altération graisseuse des capsules surrénales* [Bronze Coloring of the Skin in a Case of Pulmonary Phthisis; Fatty Degeneration of the Adrenal Capsules] (Charcot and Vulpian 1857), with their comments:

“As for the adrenal capsules, not only did they show quite pronounced fatty degeneration, but they also no longer contained the chromogenic substance that turns pink under the influence of iodine and other oxidizing agents.”

—later discovered to be the adrenal medulla secreting adrenaline. Three years later came: *Des néo membranes de la dure-mère, à propos d'un cas d'hémorragie méningée* [On Neo-Membranes of the Dura Mater, Concerning a Case of Meningeal Hemorrhage] (Charcot 1860).

As we can see, the two companions were regulars at the *Société de Biologie*, founded in 1848 by Pierre Rayer along with Claude Bernard (1813–1878), François Magendie (1783–1855), Charles-Edouard Brown-Séquard (1817–1894), and Charles Robin (1821–1885), a pioneer in

the use of the microscope. They became members in 1851 (at the age of twenty-five), and the following year of the *Société anatomique de Paris*.

In fact, history would especially remember their descriptions of neurological diseases while they were heads of neighboring services at La Salpêtrière, sharing the same laboratory for microscopic studies after autopsies of female patients. For example:

- *De la paralysie agitante* [On Shaking Palsy] published in *Gazette hebdomadaire de médecine et de chirurgie* in 1861 and 1862 (Charcot 1861-1862), and a printed monography published in 1862 (Charcot and Vulpian 1862a); they paid tribute to James Parkinson, who had described the disease, though the eponym would only be attributed to him a little later.
- *Sur la sclérose en plaques de la moelle épinière* [On Multiple Sclerosis of the Spinal Cord], published in 1866 and signed by A. Vulpian alone (Vulpian 1866) (Figure 3). J.-M. Charcot, in his 1887 speech would say: "... numerous discoveries made by Vulpian... first attempt at a symptomatic description of the disease called multiple sclerosis..." (Charcot 1887); yet Vulpian noted in the article that it was Charcot who proposed the name for the disease (Vulpian 1866b), and later Charcot would describe the forms involving the brainstem and brain, proving that the lesions were identical (Zalc 2018).
- Progressive locomotor ataxia, described together in two successive articles: *Sur un cas d'atrophie des cordons postérieurs de la moelle épinière et des racines spinales postérieures (ataxie locomotrice progressive)* [On a Case of Atrophy of the Posterior Columns of the Spinal Cord and Posterior Spinal Roots (Progressive Locomotor Ataxia)] (Charcot and Vulpian 1862b) and *Sur deux cas de sclérose des cordons postérieurs de la moelle épinière avec atrophie des racines postérieures* [On Two Cases of Sclerosis of the Posterior Columns of the Spinal Cord with Atrophy of the Posterior Roots] (Charcot and Vulpian 1862c). They attempted treatment with silver nitrate but were later disappointed with the results in this condition (Charcot and Vulpian 1862d).

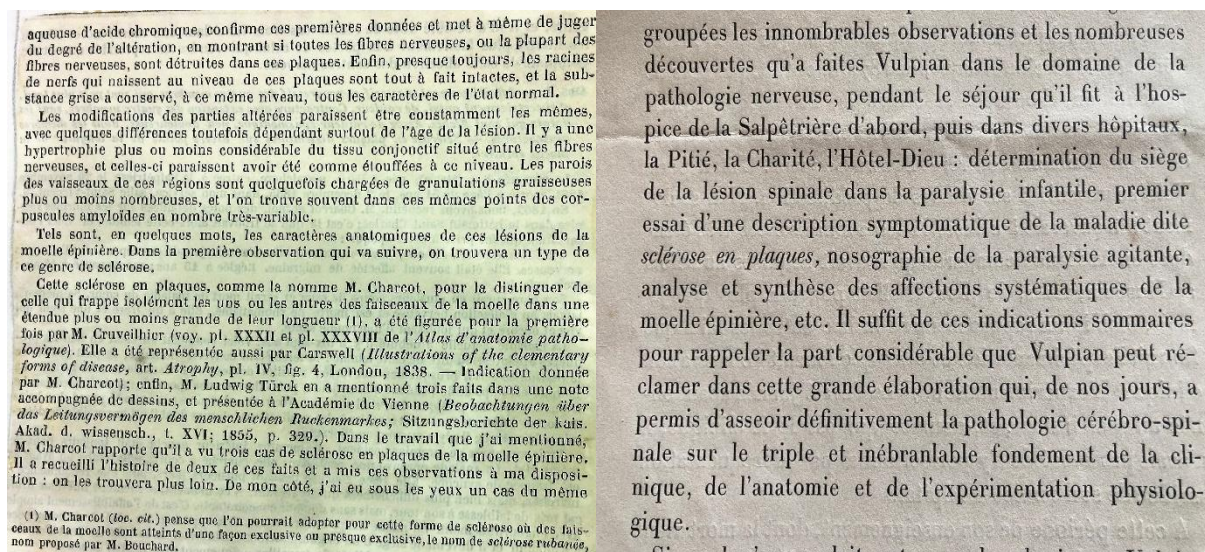


Figure 3. Article by A. Vulpian, « *Sur la sclérose en plaques de la moelle épinière* » [On Multiple Sclerosis of the Spinal Cord], on the left, and clarifications by J.-M. Charcot in his posthumous speech (Charcot 1887). (Family Archives)

This anatomoclinical method, they would also apply in many other fields of medicine, and it would be too long to detail here all of their co-signed works: let us mention those on endocarditis, which they called ulcerative with a typhoid form; on pulmonary abscesses; on an infarction of the wall of the left ventricle with a clot in a coronary artery and rupture into the pericardium; on senile osteomalacia and its frequency in that population of the *Hospice de la Vieillesse-Femmes* [Hospital for Elderly Women] that was La Salpêtrière; and so on.

In addition to their friendly meetings (see below) and alongside the scholarly Societies already mentioned, they attended sessions of the *Académie de médecine* [Academy of Medicine] (Vulpian was elected in 1869, Charcot in 1873), and later also those of the *Académie des sciences* [Academy of Sciences], to which Vulpian was elected in 1876 (appointed Perpetual Secretary in 1886) and Charcot in 1883.

When the Chair of Pathological Anatomy became vacant in 1867, A. Vulpian was appointed to the position despite opposition from the clergy—and no doubt with the help of Charcot, who would say in 1887 after his funeral:

“Now it was necessary, with the eye armed with the microscope, to penetrate into the very intimacy of the organs... Vulpian alone, among the *agrégés* in medicine of the time, was, incontestably, sufficiently prepared by his earlier studies to accept such a heavy responsibility. ...” (Charcot 1887).

In 1872, when A. Vulpian left this chair for that of Experimental Pathology, he entrusted it to J.-M. Charcot!

Only one slight irritation arose between them, in May 1881, when A. Vulpian, then Dean of the Faculty of Medicine since 1875 (his term renewed at the request of his colleagues, including J.-

M. Charcot, in 1880—see Figure 4), was offended by the “political” decision to create a Chair of Nervous System Diseases for J.-M. Charcot without prior consultation of the Faculty. He supported his friend’s candidacy but not bypassing the established hierarchy.

Faculté de Médecine de Paris.

Paris, le 25 Novembre 1850.

Monsieur le Doyen,

Le Conseil Supérieur de l'Instruction Publique devant s'occuper dans un avenir prochain du mode de nomination des Doyens des Facultés, il importe beaucoup à notre Compagnie que vous consentiez à rester à sa tête. Les services que vous avez déjà rendus, à la Faculté, nous font vivement désirer que vous consentiez à conserver le décanat et nous venons vous demander de vous rendre aux vœux de vos Collègues.

C. Larigue
Ruyon
L. Goswiler
H. Baillet
D. Dandz
P. Lefebvre
A. Jannin
Thouvenot
Barrot

Bouchard-Dutail
Reynaud
Marecot
Ch. Frérot
Fournier
J. Richy
Savaud
Bouchard
Lacaze
Laccoré
G. Pétre
Guariz
C. Virey
Gréclaire
Dopran
Cappey
L. Le Fort
Bancel

Figure 4. Letter of support for the renewal of A. Vulpian's position as Dean, signed by his colleagues, including J.-M. Charcot. (Family Archives)

Testimonies of Their Friendship

In the family archives of A. Vulpian's descendants, there exist handwritten letters that bear witness to this closeness—going beyond social conventions—such as being witnesses at each other's weddings, with their wives themselves being friends.⁴

For example, Vulpian wrote to his brother Gustave in 1867 or 1869 that he was expecting him for dinner with the Charcot family, but his brother did not come, fearing the presence of “decorated people”! Earlier, in 1866, he had sent a letter to M. Philippeaux (see footnote n. 3) from Gérardmer (Vosges), where he was on holiday with Charcot and his wife, while he himself was still unmarried. In another letter from the same place, this time to his brother Paul, he mentioned that Mme Charcot was tired and that he had climbed up with Charcot to admire the view over the chalet.

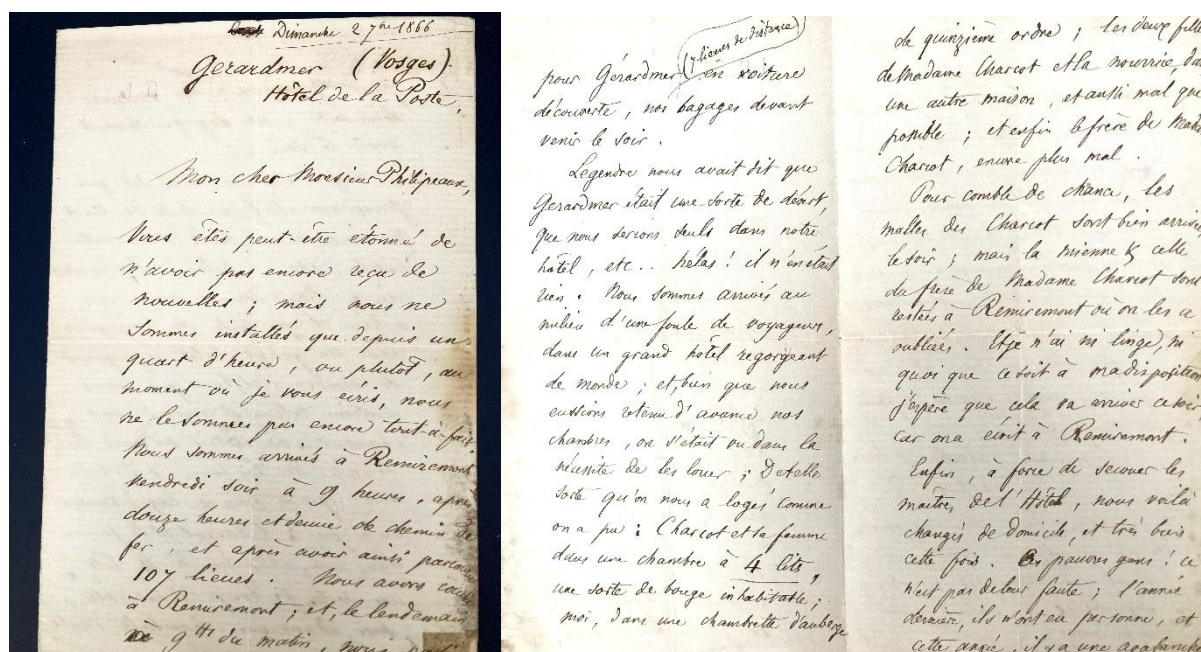
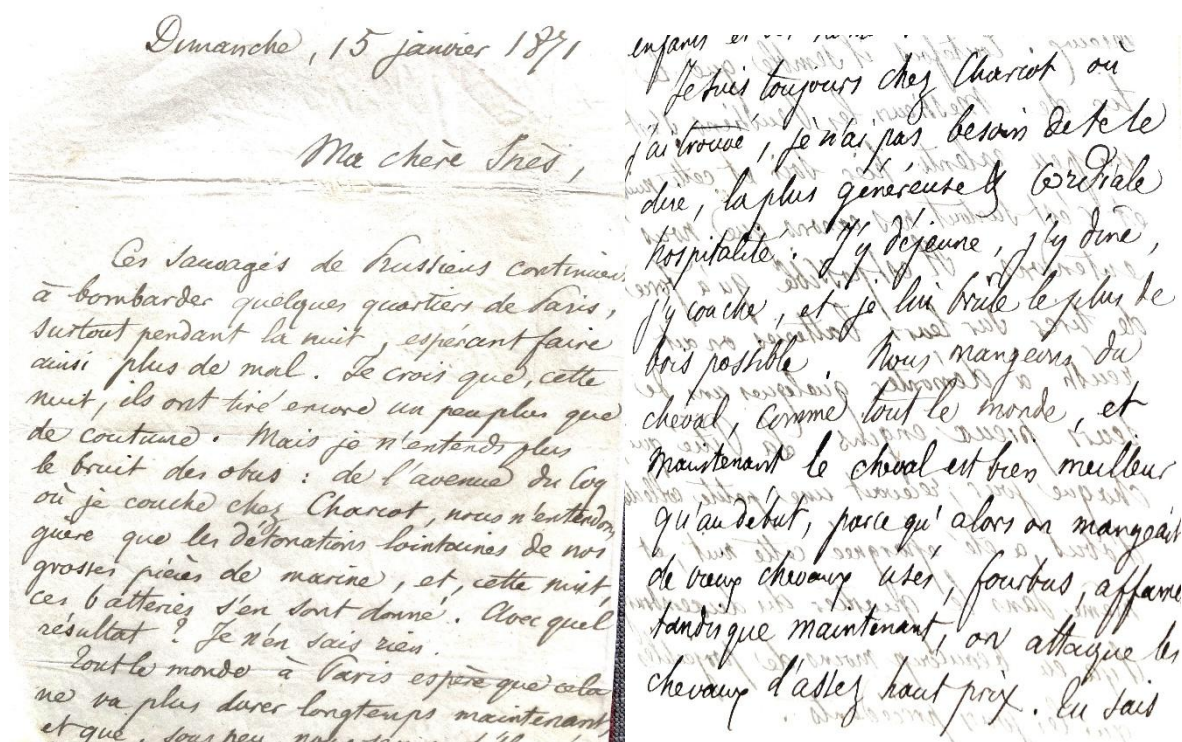


Figure 5. Letters from A. Vulpian, still unmarried, bearing witness to his closeness with the Charcot family, with whom he was on holiday in the Vosges in the summer of 1866. (Family Archives)

During the war of 1870–1871, A. Vulpian sent his pregnant wife to Rennes to escape the siege of Paris by the Prussians and wrote to her *par ballon monté* [by mounted balloon]—meaning the letters left Paris by balloon when the wind blew in the right direction. He informed her that the bombardments in the neighborhood where he lived, near the Panthéon, kept him from sleeping, and that he had gone to live with J.-M. Charcot near the Gare Saint-Lazare, with whom he shared firewood (the winter was very cold, with -12° for several weeks) and horse meat,

⁴ Our thanks to Mme and M. G. de Vulpian, who gave us access to these precious archives, among which are 103 handwritten letters from A. Vulpian to his wife.

since famine reigned as a result of the siege of Paris—soon they would have to make do with rats!



Par ballon monté

Dimanche, 15 janvier 1871

Ma chère Inès,

Les sautes de Prussiens continuent à bombarder quelques quartiers de Paris, surtout pendant la nuit, espérant faire ainsi plus de mal. Je crois que, cette nuit, ils ont tiré encore un peu plus que de coutume. Mais je n'entends plus le bruit des obus : de l'avenue du Log où je couche chez Charcot, nous n'entendons que les détonations lointaines de nos grosses pièces de marine, et, cette nuit, ces batteries s'en sont données. Avec quel résultat ? Je n'en sais rien.

Tout le monde à Paris espère que cela ne va plus durer longtemps maintenant, et que, sous peu, nous serons libérés.

mon enfant

Je suis toujours chez Charcot, où j'ai trouvé, je n'ai pas besoin de te le dire, la plus généreuse & cordiale hospitalité. J'y dîne, j'y soupe, j'y coache, et je lui brise le plus le plus possible. Nous mangeons du cheval, comme tout le monde, et maintenant le cheval est bien meilleur qu'au début, parce qu'alors on mangeait de vieux chevaux usés, fourbus, affamés tandis que maintenant, on attaque les chevaux d'assez haut prix. Tu sais

Figure 6. *Par ballon monté* [By mounted balloon] letters from A. Vulpian to his wife Inès, who had taken refuge in Rennes during the siege of Paris by the Prussians, while she was expecting their first child. (Family Archives)

Conclusion

The second half of the 19th century transformed medical knowledge, shifting from an anatomical description of bodies and the visible signs of disease to their study through post-mortem microscopic analysis, which made it possible to identify characteristic lesions of distinct pathologies. Foreign authors contributed to this revolution, and their writings were studied in Paris. But in this capital, one must praise the friendly partnership of two passionate and complementary physicians, who supported one another in advancing knowledge—above all by working side by side in the same hospital, La Salpêtrière. Just as they also had to live in the same flat (the one of J.-M. Charcot who invited A. Vulpian because the bombs sent by the Prussian troops did not fall there) during the siege of Paris in the winter of 1870–1871. Far from competing, J.-M. Charcot and A. Vulpian showed that unity is strength—in medicine as in other fields.

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Charcot and Ferrier

(Letter to the Editor)

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It is globally recognized that Charcot's impact on the development of neurology as an independent medical discipline in the latter half of the nineteenth century was immense, not least through his influence on the many clinicians who visited his department at the Salpêtrière. A recent article has documented many of these individuals from around the world (Broussolle et al. 2025) but overlooked one clinician who was to declare, long after his visit to Paris, that he had "himself been a pupil of Charcot over fifty years ago in the Salpêtrière. He referred to his master as one who had made an old poor-house ward into the most visited and most famous clinic in the world" (Anon. 1925, 1311). The clinician in question, also an experimental physiologist, was David Ferrier (1843-1928).

Documentary detail on Ferrier's visit to Paris is sparse. To my knowledge, the only account is incidental, appearing in a note dated 4th April 1877 which reported on a meeting held the previous day, Tuesday 3rd April, and published in the *Lancet* issue of 14th April: "a large party met at the Hospice de la Salpêtrière to witness various experiments made in metallotherapy by Professor Charcot and Dr. Burg". As well as describing the experiments undertaken, the correspondent noted those present: "I may mention that Dr. David Ferrier, of London, who is on a visit to Paris, and who has given especial attention to the wards of Dr. Charcot; ... and several other medical men and writers for the press, were present on the occasion" (Anon. 1877, 553). It may be that this was when Ferrier adjudged himself to have been a "pupil" of Charcot; it dates to almost fifty years before Ferrier's retrospective account. If so, the demonstration on metallotherapy left no obvious trace on Ferrier's subsequent therapeutics.

By this stage of his career Ferrier's name was well-known, based on his experimental research into cerebral localisation of motor and sensory functions, animal studies commenced at the West Riding Asylum in Wakefield (1873) and continued thereafter in London where he was Croonian Lecturer at the Royal Society (1874 and 1875). In 1876 Ferrier published his monograph on *The Functions of the Brain* and was elected a Fellow of the Royal Society. Ferrier's research work was recognised later in 1877 by the award of the Montyon prize in physiology of the Académie des Sciences in Paris, for "his series of experiments on the effects produced by the Electrification of the Surface of the Brain" (the prize was shared with MM. Carville and Duret).



As is well-known, Ferrier subsequently dedicated his Gulstonian Lectures delivered to the Royal College of Physicians of London in 1878, entitled *The Localisation of Cerebral Disease* (Ferrier 1878), to Charcot (later translated into French by de Varigny). Therein Ferrier cited examples of clinico-anatomical correlation reported by Charcot, several in collaboration with Pitres, although Ferrier had already attempted such correlation using material from the case books and postmortem books of the West Riding Asylum (Ferrier 1874).

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