## Georges Gilles de la Tourette Life and work



by Hermann Krämer

Translation: Dr. Christine Daniels

Georges Albert Édouard Brutus Gilles de la Tourette was born on October 30th 1857 in Saint-Gervais-les-Trois-Clochers, a small village near Loudun in the département Vienne in west-central France. His father, Théodore, was a merchant and had four children, of which Gilles was the eldest. He grew up in a family that already had brought forth many physicians and scholars. Little is known about his early childhood: His education started at the boarding school of Chatellerault, where he was striking as an exceptionally talented but also restless and rebelling pupil, who often was bored by school lessons. He commenced medical studies at the University of Poitiers at the early age of 16 years and finished his studies in 1881 with great success.

Subsequently he left for Paris to continue his medical education. This time Paul le Gendre, a friend of Gilles, was describing Gilles in the following way [1]: He was a sociable man and excellent speaker with a loud, rough and slightly hoarse voice. He was very spirited, sometimes flying into a passion, and tended to become impatient. In discussions, a single contradiction made him explode and not even a great number of opponents of his representations was able to bridle and moderate him. Even in loudest and heated debates his voice could be identified easily.

Gilles mastered his studies at the renowned Salpêtrière Hospital without any difficulties. Afterwards he devoted himself to inclinations and activities far from medicine. Delighted by literature and arts he had many friends in the artist world, was open to many new ideas and took part in literary discussions. Decisive influence to his career came from Paul Brouardel, professor of forensic medicine, and Jean-Martin Charcot, physician at Salpêtrière Hospital in Paris and professor of pathology at the medical faculty of the Sorbonne.

However, his earliest inspirations Gilles received by Théophraste Renaudot, a physician from Loudun with various talents, who supported the poor and disabled people by founding a public social- and health-service and organizing free medical consultations and examinations. Renaudot (1586-1653) was restless and untiring in his efforts to improve the general situation and medical care of the poor, and Gilles de la Tourette was so impressed by his work, that he wrote an interesting biography of Renaudot to increase common appreciation for his work [2].

Gilles started working under Charcot in 1884 and was fond of his profession from the first day on. Jean-Martin Charcot (1825-1893) already had begun his studies about hysteria and hypnosis and the Salpêtrière was a centre of intensive research. At that time the term of 'hysteria' was used for every neuropsychiatric syndrome that could not be classified.

Charcot took an interest in a malady, which seemed to be a mental disorder with physical manifestations, of immediate interest to a neurologist. He believed that hysteria was the result of a weak neurological system which was hereditary. It could be set off by a traumatic event like an accident, but was then progressive and irreversible. To study the hysterics under his care, he learned the technique of hypnosis and soon became a master of the relatively new 'science'. Charcot believed that a hypnotized state was very

similar to a bout of hysteria, and so he hypnotized his patients in order to induce and study their symptoms. Charcot´s lectures regularly were discussed in the public press and the locations of his lectures were attended by artists, literati and physicians. An essential part of the work of Gilles de la Tourette, who in the meantime had become consultant physician of Charcot, was the instruction and preparation of patients for later public presentations.

In this environment Gilles became more and more enthusiastic about neuropathology and also concentrated his studies to hysteria and hypnosis publishing several articles and a three volume work titled 'Traité clinique et thérapeutique de l'hystérie d'après l'enseignement de la Salpêtrière' [3], in which he recorded all the ideas of Charcot and his own theories.

Having studied neurological diseases intensively over many years, Jean-Martin-Charcot was appointed to the 'Chaire de clinique des maladies nerveuses' thus becoming the first pure neurologist of medical history. He rapidly established an international fame as a teacher, attracting physicians from all over Europe to learn at his institute, even Sigmund Freud was attached to his department in 1885/1886.

In 1885 Tourette also became assistant physician of Brouardel. Both got on well with each other and cooperated in an ideal way, so that Gilles was appointed a permanent teacher of the course of forensic medicine, where he blossomed out as an extrovert.

The year 1885 was of great importance for the beginning research of Tourette's Syndrome. However, as early as 1825 Itard had described the extraordinary behaviour of the Marquise de Dampière, who had called everyone's attention by executing strange body movements and peculiar vocalizations and obscene remarks from the age of seven [4].

Itard (1774-1838), a French physician and educationalist, had gained common recognition through his methods of education for children with mental retardation, which were based on training the senses. He had published two reports on the patient and persistent education of the 'wild child' from the Aveyron that he had admitted to the institute for the deaf and dumb, and these reports had fascinated the academic circles [5a, 5b].

Now, 60 years later, Gilles de la Tourette published a study on 'a disorder of the nervous system characterized by motor incoordination in combination with echolalia and coprolalia' ('Étude sur une affection nerveuse caracterisée par l'incoordination motrice accompagnée d'écholalie et de coprolalie') in the Archives de Neurologie [6]. In this publication Dr. Tourette described the disorder of the Marquise de Dampière and eight similar cases, calling this neurological disorder 'Maladie des Tics'. According to several sources, Dr. Tourette had intensely studied motor disorders since 1881, and indeed he was the first to comprehend a connection between the multiple complicate and various manifestations of this 'Maladie des Tics'. His mentor Charcot favoured the euphonic eponym of 'Gilles de la Tourette' ("Quel joli nom pour une maladie aussi horrible!") and this name was attached to the disorder.

Interestingly Gilles de la Tourette had travelled to London in 1884 to discuss these cases with John Hughlings Jackson, a neurologist of the London Hospital. Jackson told him, that he never had observed comparable disorders. However, in the same year Dr. Jackson demonstrated a similar case in clinical lectures and reports to the London Hospital [7]. In 1886 Tourette's thesis was honoured for the method of finding a neurological diagnosis by analysing the forms of the patients' feet, respectively their footprints. With regard to this work he received the Godard award in the following year. In the same year he married Marie Detrois, his ten years younger cousin, with whom he was going to have two sons and two daughters.

In 1887 he was appointed chief physician under Charcot and the wide field of his duties should demand all of his undoubtedly considerable energy. He had to supervise and manage various clinical wards, to develop modern forms of therapies and, if they turned out suitable, to introduce them in practice, and to educate medical students.

All these tasks and duties he mastered with authority and self-consciousness, showing an eagerness, which exceeded normal measures by far. Additionally he invested much time into the publication of articles in medical journals. Beside his interests in hysteria, hypnosis, neurasthenia and the 'Maladie des Tics' Dr. Tourette also had intensively concerned himself with epilepsy. The results of his studies, combined with the ideas of Charcot, he published in a small volume with the title 'Le Traitement pratique de l'épilepsie, dose suffisante de bromure, signe de la pupille '[8].

An additional example for his wide interests and various subjects of research was shown by the invention of a battery-operated vibration helmet, which he employed in the therapy of facial neuralgias and vertigo. In different reports concerning his life, an impressing number of activities is mentioned and one cannot but ask, how this man was able to summon up the necessary energy.

To recover from his medical work, he was working as scientific correspondent and literary critic at the literary weekly newspaper 'La Revue Hébdomadaire'.

As far as his career was concerned there was no significant progress, in spite of Charcot´s unrestricted support. One reason was, that he did not care about questions, answers and problems, which did not interest him, and so he had acquired an extremely filtered and narrow, almost one-sided knowledge. His friend Paul le Gendre described him the following way [1]: 'Gilles, who was completely occupied by studies of neurological disorders, therefore had gaps of knowledge in other fields of pathology and an incomplete practical experience in special clinical cases'.

Also his frank and critical behaviour, which had not helped him to find many friends over the years, prevented him from promotion. In 1892 he was proposed for a position as lecturer together with Babinski (French neurologist), but both were 'singled out' in favour of another candidate. In these meaningful years Gilles was working as regular lecturer and chief physician offering lectures and presentations. Over time he developed composure and calm and obtained great appreciation for the electrifying character of his lectures.

Dr. Lees, movement disorder neurologist at the 'National Hospital for Nervous diseases', London, described Gilles de la Tourette as an extraordinary and peculiar person, fascinated by studying eccentric people [7]: '[...] in 1893 he [Gilles de la Tourette] reported the case of un 'Danseur Monomane' in the scientific journal 'Le Progrès Medical'. This remarkable character frequented the Moulin Rouge and could be seen nightly mingling with the crowds correctly dressed with a flower in his buttonhole frantically trying to gain peoples attention by wild arm movements and the jerking of his hat on the end of his cane. Intermittently he would run from one end of the floor to the other, jump on the stage spurred on by the ironic crowds and as soon as the music ceased he would again mingle anonymously with the crowd only to repeat the whole performance over and over again. The regulars would say "c'est le fou" and leave him to his devices knowing him to be inoffensive. Gilles de la Tourette interviewed this man and gave a full description of his mental state.'

There would be several other stories to tell about Gilles. One unkind story revolves around Léon Daudet (1867-1942), a medical student of that time and a friend of Charcot's son Jean, uttering the following description [9]: He is ugly as a holy idol of Papua with put up hair locks on his head and he has a deceitful and malicious spirit. In the present historical source it is not mentioned, how this personal aversion had originated. Gilles de la Tourette once had described himself as 'ugly as a louse, but very intelligent'.

Tourette was a frequent guest in the house of Charcot and regularly attended the 'Tuesday-evening-soirees', which took place at this location. On these evenings it was strictly forbidden to talk about medicine in any way. Here Gilles de la Tourette met several Parisian personalities, including Alphonse Daudet, Maupassant and for instance Dom Pedro, the last emperor of Brazil (overthrown in 1889 he had had to leave the country).

1893 was to be a hard and sad year. Gilles lost his son Jean, who died of meningitis. In the same year Gilles had to put up with the death of his mentor Jean Martin Charcot: during an excursion to Le Morvan his friend and promoter died of an acute lung oedema.

Also a further calamity happened to Gilles in 1893: Gilles was shot in his appartement in the Rue de l'Université 39 by a young woman, who had been his patient in the Salpêtrière and who claimed that she had been hypnotized without her agreement and thereby had lost her mental health. Dr. Lees has described this event [7]: 'In the early evening of December 6th 1893 a young woman dressed in black entered the forecourt of 39, rue de l'Université, the residence of Charles Risler, major of the VII arrondissement, and rang the door-bell of Gilles de la Tourette's home on the ground floor. The physician's valet answered informing her, that his master was out, but she insisted on waiting without giving the nature of her business. About a quarter of an hour later Gilles returned from Hôpital Cochin, where he had been seeing a patient and was informed, that a respectable widow was there to see him. On catching sight of the doctor the woman immediately rose and pursued him to his consulting-room. There she showed him a paper with three names on it - Rochas, Luys and Charcot - and begged for 50 Francs claiming that the doctors of the Salpêtrière had ruined her. Gilles de la Tourette, realizing that he was in the presence of a mad woman, politely refused, but offered to admit her for treatment under his care. As she did not reply he then got up to leave, but the infuriated woman

fired a revolver shooting him in the back of the neck (Paul le Gendre reported three shots, one of which hurt Gilles in the region of the head [1]). After this the woman sat down in the hall making no attempt to escape and saying quietly to herself "I know, that what I just have done was wrong, but it was necessary and now I am satisfied. At least one of them has now paid for the others." Although the woman was penniless on her arrest and her possessions consisted mainly of newspaper cuttings about hysteria, police inquiries soon determined that the woman's name was Rose Kamper (née Lecoq). [...]. This woman had been ill for at least 2 years before the assault. [...]. After her arrest by the police in Gilles de la Tourette's home she made the following illuminating statement relating to her mental state: 'Within me there are actually two different people, one physical and one intellectual, my thoughts no longer belong only to me, but also to those, who possess me. During the day my intellect allows me to resist the powers which enter me without my knowledge, but at night I am overpowered and it is to defend myself against these impulses that I bought a revolver in the Rue de Rivoli two months ago.'

This assassination on Gilles de la Tourette kept the newspapers busy for further weeks and the doctors Brouardel and Ballet, who were commissioned by the magistrate to examine Mrs. Kamper, diagnosed a disease nowadays called paranoid schizophrenia. Therefore they concluded that hypnosis was not the cause of any part of the disease. With this diagnosis Rose Kamper was defined to be mentally ill and was admitted to hospital St. Anna. After two years she was transferred to the 'Institute for the insane' in Villejuif and after a second attempt at murder consisting of stabbing a nurse with a fork, she was banished to the sanatorium 'Asile de Breuty de Couronne in Charente', from where she managed to flee in 1910. Rose Kamper had threatened to repeat the assault on Gilles de la Tourette. As the police department, informed about the flight of this mentally ill woman, was well aware of the risk Gilles was exposed to, they offered him a security officer during his consulting-hours. Moreover it is reported, that Mrs. Kamper had left for Paris, but for unknown reasons she never reached this destination [1]. One year later she was found by the police, having reassumed her maiden name and working as a seamstress and as her mental state had stabilized, she was allowed to live in freedom. Owing to a progressive mental break-down she was readmitted in hospital St. Anne (Paris) in 1951 and died in 1955 at the age of 92 years in the hospital of St. Rémy.

Fortunately the gunshot wound on the back of Gilles' head just was a superficial wound of the skin. The young surgeon Pierre Delbet could remove the projectile without any

difficulty and after a short time Gilles had recovered completely and again became absorbed by his work.

In 1894 he was appointed Professeur Agrégé, i.e. extraordinary professor of forensic medicine. Nevertheless he still devoted himself to neurological studies and completed the second and third volume of his work about hysteria [3].

Over a long time Dr. Tourette had supposed, that the Tourette's syndrome would result in a severe mental illness in the patients' later life. In 1899 he revoked this opinion, essentially influenced by his colleague Louis Guinon (1860-1929).

With the political support of Bourneville and his old friend Millerand from the Quartier Latin - the latter, being a revolutionary socialist, in the meantime had become a member of the parliament - Gilles was elected chief official physician of the world exhibition in Paris 1900. Although first discrete indications and reports about his affected state of health can be found, he proved to be an excellent organisator and administrated the establishment of an extraordinary emergency service. As a sign of appreciation and gratitude Gilles was awarded with the title 'Honorary officer of the legion' and a great dinner in the 'Hotel Continental' was held in his honour.

Just a short time after these honours, however Gilles' state of health started deteriorating continuously. Having published an article concerning syphilitic myelitis in 1899 [10] he now suffered from depressions fearing to have a late stage of syphilis himself. During a lecture in the Odeon he suddenly collapsed and had to be carried home.

In the beginning of the year 1901 the disease forced him to denounce his employment at hospital. Up to this moment no detailed indications or hints of Gilles real disease could be received from historical sources. At the turn of the century neurosyphilis was a relatively wide-spread disease. Léon Daudet, who suffered from neurosyphilis like Guy de Maupassant and Jules de Goncourt, describes vividly in his book 'Devant la Douleur' [9] the pain and misery, he had to endure through this disease. He also reports an accidental meeting with Gilles de la Tourette, in which Dr. Tourette had presented such a strange behavior, that Daudet, who knew exactly about the symptoms of neurosyphilis, did not doubt, that also Gilles de la Tourette was suffering from the severe symptoms of this disease.

First hints concerning the further life of Dr. Tourette can be found in the 'Rapports entre la psychiatrie suisse et la psychiatrie francaise' in the 'Annales de Thérapeutique Psychiatrique' (1969) written by Müller [11], who had been medical director of the hospital Cery from 1976 to 1987. The psychiatric hospital Cery was founded in 1873, being situated on the ground of the community of Prilly, close to Lausanne. This institution still exists under the name 'Cliniques psychiatriques et psychogériatriques universitaires Prilly/Lausanne'.

Here the translation of the relevant passage from the French original: 'Albert Mahaim (1867-1925), one of my predecessors at the chair of Lausanne, had to receive poor Gilles de la Tourette in Cery (Mahaim had been medical director of Cery from 1899-1925; Note of the Author), who suffered from progressive paralysis and several years later died in our clinic. To prevent a scandal - the Parisian newspapers already then had reported about Gilles as an insane psychiatrist - Jean Baptiste Charcot, son of Jean Martin Charcot, had suggested Gilles to travel to Lucerne for recovery." The further development of his fate and the detailed circumstances, which should result in the admission at hospital Cery, are described in an impressive way by C. Müller in his book entitled: 'Wer hat die Geisteskranken von ihren Ketten befreit' [12]: 'For admission at hospital Cery the physician Jean Baptiste Charcot (1867-1936) wrote an attest, stating that Gilles had been suffering from episodes of melancholia for two years and wanted to commit suicide and subsequently had got into a state of manic expansivity including megalomania (ideas of greatness). Neurological examination lead to the diagnosis paretic neurosyphilis. After Gilles' arrival at the hotel in Lucerne he was behaving more and more excitedly, bought hiking-sticks for 1500 Francs and stole menus and tooth-picks from the hotel restaurant. Jean Baptiste Charcot was asked for help and - it is terrible to hear this story - he told Gilles about an imaginary famous patient waiting for Gilles at hospital Cery, who was requesting for Dr. Tourette's professional advice. Gilles arrived at Cery on May 28th 1901, but no famous patient was waiting for him. Instead this was the beginning of his internalisation and he was prevented from leaving the hospital by force. Gilles was hopeless and dejected. On June 1st he became so upset about it, that he had to be transferred to a cell. [...].

Nowadays it seems to be easy to condemn the methods common in former times and we are not surprised to read in Tourette's hospital documents, that he massively protested against his internalisation in our hospital'.

Why had a Swiss hospital been chosen? We can certainly suppose that Gilles' friends did not want him to stay in a Parisian hospital and to protect him from the curiosity of the boulevard press. During his involuntary stay at Cery unhappy Gilles directed several indignant letters to the sanitary authorities, the public prosecutor and to the medical director of Cery, requiring his immediate discharge.

The cruel progression of this disease robbed the intellectual self-determination and -control of such an avid and vivacious man like Gilles de la Tourette within only a few years.

Dr. A. J. Lees was granted access to medical documents illustrating the gravity of Dr. Tourette's disease by C. Müller [7]. The reported symptoms give us an idea of the torments and pain he had suffered in the last years of his life: megalomania, ataxia, big motionless pupils, dysarthria etc. are mentioned in these documents. Towards the end of his committal of three years at Cery Gilles became more and more psychotic, his speech was incoherent and he often suffered from convulsions.

Dr. Gilles de la Tourette died on May 22nd 1904 in the hospital Cery in presence of his family that had been staying in Switzerland during the whole time of his disease. His wife Marie and three of his children (Jeanne, Madeleine and Francois) were living in Lausanne from November 4th 1901 to August 15th 1904. At first they had found accommodation in the Hotel Beau-Séjour, until they settled down in the Avenue des Alpes. Finally they went back to Paris [13].

After his death, Gilles´ body had been transported to France and he was buried in the grave of his family in Loudun [14].

The early death of Gilles de la Tourette evoked different reactions. His devotion to Charcot was criticized as too strong and his bequest to clinical neurology reduced to a summary and representation of the final period of Charcot's work. In a conference of the board of directors of the public health service on June, 2nd 1904, the loss of only 46-year-old Gilles was regretted. In his speech the president reminded them, that they had lost one of their most talented colleagues: 'At sites of his work he is remembered as a hard-working and conscientious physician'.

It is delivered, that he was adored by the members of his family, especially by his children, the last one of whom, Jeanne, died in 1979. An especially touching formulation of Gilles' attitudes to his family and friends can be found in the writing of Paul le Gendre [1]:' He often repeated that you owed body and soul to the ones, you loved, all the time.'

Concerning the future development of the Tourette research Paul Guilly, the 'Ancien Chef de Clinique Neuro-Psychiatrique à la Faculté Paris' writes [15]: 'Between 1885 and 1965 only 50 cases of Tourette's Syndrome were described in medical scientific literature, making more and more experts doubt the existence of this disorder.

The name Gilles de la Tourette gradually disappeared from most neurological and psychiatric treatises, medical encyclopaedias and books of medical history of France. Scientists, who had kept researching Tourette's Syndrome in this period of 80 years, were discussing several theories: different kinds of cerebral degeneration, psychological, psychoanalytical and psychosomatic aetiologies were suggested.'

In 1978 four scientists from New York published an important scientific work entitled 'Gilles-de-la-Tourette-Syndrome', reporting 485 cases [16]. Additionally it contained 250 descriptions of these scientists' personal examination results and a carefully elaborated study of 145 patients. Thereafter research interest in Tourette's Syndrome was more and more increasing as stated by Dr. Lees 1986 [7]: 'The contribution of Gilles de la Tourette accurately describing the socially crippling disorder which now carries his beautiful name has been recognised and acknowledged by the new generation of American behavioural neurologists who see in this illness the ideal paradigm for investigating the interaction between emotion and movement.'

Today the Gilles de la Tourette's Syndrome is accepted as a specific movement disorder and international associations like the Movement Disorder Society, which is dedicated to disseminating information on recent advances in both clinical and basic sciences related to movement disorders and to the education of physicians and the public, have focused an interest on the Tourette's Syndrome.

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Speyer, im Juli 2002

Hermann Krämer

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## <u>Figure:</u>

Georges Gilles de la Tourette (1857-1904).

Source: E. de Lavarenne (1904): Gilles de la Tourette. Presse méd., ann. n° 45, p. 353-354, portr. 166 PER 11.

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