

Could neurological illness have influenced Goya's pictorial style?

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ABSTRACT

Introduction. In 1792, at the age of 46, Goya suffered a neurological illness with symptoms including headache, vertigo, ataxia, changes in vision, and possibly motor deficit. That illness left him with permanent hearing loss. In 1819, at the age of 73, he fell seriously ill once again, but with no sequelae on that occasion. One might postulate that the change in his pictorial style, which culminated in his famous Black Paintings, could have been related to his brush with death, or to his disease and its lasting consequences.

Methods and Procedure. This article offers an analysis of the artist's correspondence with friends and family members after 1790, and of writings and theories regarding his illness and change in artistic style. It also examines several of his Black Paintings and their symbolism.

Conclusion. Goya's illness may best be explained by Susac's syndrome, but we must be wary of the tendency to attribute rare diseases to exceptional people. Another compelling possibility is that he suffered from cerebral malaria, and that prolonged treatment with high doses of cinchona bark caused cinchonism (quinine poisoning) and permanent hearing loss. Goya, a genius both before and after his illness, was a painter by vocation. Analysis of relevant texts seems to indicate that his escape from death let him overcome personal inhibitions and social conventions and paint whatever he wanted. His personal experiences and his need to express the frustration of the troubled times in which he lived may have led to changes in his style and subject matter.

KEYWORDS

Goya, neurological disease, Susac's syndrome, malaria, cinchonism, Black Paintings.

Introduction

Many scholars have called attention to the changes in Goya's artistic style after his illness in Cádiz between 1792 and 1793 in an attempt to link those changes to his disease or its sequelae. This article examines Goya's correspondence with friends and family members and analyses a number of different theories regarding both the cause of his illness and the changes in his artwork.

As painter to the royal court, Goya was obliged to paint by commission. However, he was passionate about painting as a means of expressing human nature, which led him in the end to paint his fears, the face of evil, and the tragedies of war. Although there are a number of theories explaining the illness which Goya suffered at the age of 46, Susac's syndrome and Cogan syndrome are the most likely candidates.

Another compelling possibility is that he suffered from cerebral malaria, and that prolonged treatment

with high doses of cinchona bark caused cinchonism (quinine poisoning) and permanent hearing loss.

Material and methods

The author analysed letters written by Francisco Goya to his friend Martín Zapater,^{1,2} letters by Sebastián Martínez, also a friend of Goya's,² the painter's professional correspondence¹, and those written by his last partner, Leocadia Zorrilla de Weiss.³ The author also examined a number of biographies of Goya^{4,5,6} and medical literature containing theories as to his neurological illness⁷⁻¹⁸ and any influence it may have had on his change in pictorial style.^{4,5,8,13,18}

In addition, this article describes and analyses several of Goya's Black Paintings and the symbolism they contain.^{19,20}

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Analysis

1. Biography

Francisco de Goya y Lucientes, who produced more than 700 paintings, 300 lithographs and 900 drawings in his lifetime, was born in Fuendetodos in the province of Zaragoza in 1746 (Fig. 1). In 1773 he married Josefa Bayeu, who miscarried 14 times; out of their six children born alive, only Francisco Javier reached adulthood.⁴ In 1774, Goya began to work as a designer (a tapestry cartoon painter) at the Royal Tapestry Factory in Madrid. In 1780, he was admitted to the Royal Academy of Fine Arts in San Fernando, and appointed a painter to the Royal Court in 1786. In 1792, at the age of 46, Goya suffered a neurological illness that left him with permanent hearing loss.



Figure 1. Goya. *Self-portrait*, 1794-1795. Madrid. Museo del Prado.

In 1795, Goya met 33-year-old María Teresa Cayetana de Silva, the Duchess of Alba. Their relationship inspired rumours and a number of films (*Volavérunt*, with Aitana Sánchez-Gijón and *The Naked Maja* with Ava Gardner); however, the model for the Maja was really Pepita Tudó, one of Manuel Godoy's lovers. Goya's great skill as a portrait artist is probably also due in part to his deafness. The deaf are more conscious of body language, gestures, and movement.⁸

In 1798, Goya completed a series of witchcraft-themed paintings for the Duke and Duchess of Osuna's country home at Alameda de Osuna. This was the first manifestation of Goya's darker side. The first release of the *Caprichos*, a series of 80 aquatint prints representing vices, superstitions, and abuses of his time, was made available for purchase in 1799. Two days later, the Inquisition removed the print album from circulation, so its 1400 copies had to be published after the artist's death (Fig. 2).



Figure 2. Goya. *Capricho No. 19, Everyone will fall*, 1796-1797. Aquatint print, 21.5 x 14.5 cm. *Capricho No. 40, Of what ill will he die?* 1796-1797. Aquatint print, 21.3 x 14.8 cm.

At the age of 53, in 1799, he was named Head Painter to the Royal Household. As court painter, Goya served under three kings of Spain: Charles III (1716-1788), Charles IV (1748-1819), and Ferdinand VII (1784-1833).

During the French occupation (1808-1814), he painted the French king Joseph Bonaparte, French generals, and the Duke of Wellington, and witnessed the horrors of the Peninsular war. In 1814, between Joseph Bonaparte's departure from Madrid and the return of Ferdinand VII, Goya asked Council of the Regency of Spain for a grant in order to complete two large paintings of the heroic deeds of the people of Madrid who rose up against the French on 2 May 1808. Goya knew that he would be on the list of collaborators with France since he had painted the French king in the hope of ingratiating himself with the new regime.⁵

The Restoration of Ferdinand VII concluded in 1815, and the king began repressing enlightened liberals. Property confiscated from former Prime Minister Godoy included *The Clothed Maja* and *The Naked Maja*; because of the latter, Goya was accused of obscenity and brought before the Inquisition. Between 1810 and 1820, he created *the*

Disasters of War series. In these prints, he chronicles the atrocities of war, presenting hard-hitting images without clearly taking sides; both the victorious and conquered factions are revealed in all their cruelty (Fig. 3).



Figure 3. Goya. *Disasters of War* no. 50, *Unhappy Mother!* 1863 Aquatint print, 15.2 x 20.3 cm.

The painter met Leocadia Zorrilla in 1805, when she was 17 years old. In 1812, Goya's first wife Josefa died, and 1814 saw the birth of Leocadia's daughter María Rosario, probably fathered by Goya. Leocadia was married to another man at the time.⁴

In 1819, the couple moved to a country house near the Manzanares River called *Quinta del Sordo* or "Deaf Man's Villa" (it was named for its previous owner, who was also deaf). He was 73 years old then, and she was 31. Between 1819 and 1820 Goya nearly died of a new illness, different from the one he suffered in 1792. He was cared for by his friend and doctor Arrieta, to whom Goya dedicated a portrait bearing a long dedication: "Goya gives thanks to his friend Arrieta for the expert care with which he saved his life from an acute and dangerous illness which he suffered at the close of the year 1819 when he was seventy-three years old. He painted it in 1820" (Fig. 4). Arrieta was an expert in bubonic plague and yellow fever, but we do not know what disease affected Goya. The dates, however, do coincide with a documented epidemic of 'peste', a term for yellow fever used at the time.⁷ This was the first time Goya had ever depicted a doctor with respect and affection; in contrast, his *Caprichos* portray doctors as incompetent asses and quacks (Fig. 2).

In any case, the episode apparently changed Goya's style yet again; between 1820 and 1821, Goya used oils to

paint allegorical, mysterious, and shadowy scenes over the walls of his first-storey rooms in *Quinta del Sordo*.

Between 1821 and 1823, he completed a similar series on the ground floor. These paintings reflect his obsession with evil as one facet of humanity. Goya exposes violence, madness, chaos, and war as parts of the natural order that are inherent to what makes us human.



Figure 4. Goya. *Self-portrait with Dr. Arrieta*, 1820. Oil on canvas, 116 x 79 cm. Minneapolis. Institute of the Arts.

Goya left Madrid a few months after completing the *Black Paintings*. On 2 May 1824, he requested leave to take the thermal waters in Plombières in the south of France, which he never visited. Instead, he set up residence in Bordeaux. He was diagnosed with a bladder condition in 1825, and at the same time, a large bone tumour was discovered in one leg. Despite his illness, he travelled to Madrid and reconciled with Ferdinand VII, who granted him a pension of 50 000 *real* per year and permission to continue living in France.

On 2 April 1828, he suffered a stroke with right hemiplegia and aphasia, and remained in a coma for two weeks before he died. Throughout this time he was cared for by Leocadia, who received nothing upon his death.³ Leocadia was forced to sell *The Milkmaid of Bordeaux*, which

was probably painted by her daughter Rosario. Goya's remains were moved from Bordeaux to Madrid in 1901. In 1929, they were laid to rest in Santa María de la Florida church, whose cupola he had painted. His skull was missing.⁴

2. Description of Goya's illness (1792-1793) in his letters.

On 25 August 1787, Goya wrote the following passage to his friend Martín Zapater: "Thanks be to God, my ague (malaria) has been relieved with the help of a pound of the cinchona bark that I bought you. It is some of the best I have found, very well selected and as good as any from the Royal Pharmacy."² This letter shows that Goya knew about malaria and how it was treated during his time.

In November 1790, Goya wrote to Martín Zapater once again:

My dear friend, I am standing but so ill that I cannot tell if my head is on my shoulders, and I have no desire to eat or do anything else. Only you and your letters can please me; I know not what is happening to me; alas, I have lost you, and he who worships you can only be consoled by the hope that you will read these lines.¹

This indicates that Goya had probably suffered from milder bouts of illness in 1777 and 1790 that apparently left no sequelae.

He journeyed to Cádiz in 1792, only requesting permission to travel after his arrival (as court painter, he was not allowed to leave without permission). It was granted in January 1793, when he was already ill. On 17 January 1793, he penned the following in a letter: "I have been in bed with colic pains for two months, and now that I am returning to Seville and Cádiz, I would wish to collect some money in Seville..."²

On 19 March 1793, his friend Sebastián Martínez wrote to Martín Zapater,

our Goya is somewhat better, although his advances are slow. I am confident that the town of Trillo and its thermal baths of which he shall partake will set him to rights. His deafness and the noise in his head remain unchanged, but his eyesight is much better and the confusion which once made him lose his balance has abated. He can now go up and down stairs easily, and do things which he could not before...¹

His friend also wrote to the office of the Sumiller de Corps on 19 March 1793:

His labours occupied the two months of leave which he had obtained, but fate would have it that he took ill in Seville, and believing that he would receive better care here, he decided to come...he passed through the doors in very poor health. His ill health remains; he has been unable to leave the house...Goya wished to write a long letter about the matter, but I did not let him, as it would have hurt his head, which is where all of his pain resides.¹

On 31 March 1793, Sebastián Martínez wrote the following lines to Diego de Gardoqui: "Goya is currently absent, suffering from paralysis..."¹

In March 1794, Goya wrote once again to Martín Zapater: "My health is the same; I go from a state of agitation, in which even I find myself unbearable, to feeling calmer, as I do now; reaching for the pen to write you, I find myself tired already"²

3. Theories on the origin of Goya's illness.

Goya's correspondence reveals that at the age of 46, he suffered an illness with a subacute onset evolving over three months with poorly-defined abdominal and neurological symptoms. The latter included headache, vertigo, tinnitus, ataxia, vision changes, and possibly motor deficit as well. He had already experienced this illness on two prior occasions, although in milder forms. His disease therefore showed signs of being a vertiginous syndrome with headache and changes in vision, and it resulted in permanent bilateral hearing loss. Differential diagnosis examined inflammatory/infectious, vascular, and toxic aetiologies.

Inflammatory/infectious aetiology

Acute viral labyrinthitis: Ménière's disease could have left him with lasting deafness even after he recovered his balance. It is also compatible with the recurrences of milder symptoms in 1777 and 1790, and the disease could have resulted in severe neurosensory hypoacusia. Ramsay-Hunt syndrome is unlikely since rash was absent and hearing loss was bilateral.⁸

Syphilis: A letter dated 30 March 1793, written by Martín Zapater to Francisco Bayeu,¹ Goya's brother-in-law who was also a painter, reads: "As I informed you, Goya has

been afflicted by his imprudence, but we must treat him with all the compassion which his disgrace inspires, as a sick man who must be given all possible means of relief, as you have done by managing to obtain leave for him..." This has led some to wonder whether he had contracted a venereal disease, but it actually refers to Goya's travelling without permission from the Crown. In any case, Goya had many lovers.⁴ Syphilis treatment at that time, consisting of mercury compounds in large doses ('Neapolitan unguent'), was practically worse than disease (it was said that patients were indeed cured before they died).¹⁸ He showed no signs of syphilitic mental deterioration in later years, making this diagnosis improbable.

Malaria: Malaria was endemic in Spain in the 18th and 19th centuries, particularly in Zaragoza and the central region of the peninsula.⁹ Goya fell ill at the same time as his brother-in-law Ramón Bayeu, who died; this could be indicative of an epidemic. However, there are no known references to an epidemic in Madrid in the winter of 1792.⁷ Malaria makes for a compelling theory, since the disease may initially cause encephalopathy with headache, paralysis of multiple cranial nerves, and motor deficit. It also may resolve with no lasting consequences, as in Goya's case, except for his permanent hearing loss. However, as stated above, he knew about malaria and its treatment.¹

Meningococcal or tuberculous meningitis: Meningitis is another possibility, since his illness presented with intense headache and hallucinations. However, this would not explain why he might have had similar symptoms on two prior occasions (1777 and 1790), or how he could have survived meningitis at the time.

Autoimmune or viral encephalitis: It would be truly rare for acute demyelinating encephalomyelitis to be accompanied by bilateral hearing loss.¹⁰ This is an infrequent possibility in Ramsay-Hunt syndrome, which sometimes presents with bilateral cochlear damage.⁸

Vogt-Koyanagi-Harada syndrome: In 1962, a study was published reporting that Goya may have suffered from VKH syndrome.¹¹ VKH syndrome is a rare autoimmune disease affecting melanin in the inner ear, eyes, hair, and skin, which causes vertigo, hypoacusia, vitiligo, and locks of white hair. However, Goya was never described as having that skin condition, and his later self-portraits did not show locks of white hair (poliosis).

Susac's syndrome: Also called retinocochleocerebral vasculopathy, this rare autoimmune disease affects the endothelium of the precapillary arterioles of the brain, retina, and inner ear.¹² It causes encephalopathy, characterised by headache and delirium which may progress to dementia. Hypoacusia is progressive and unilateral, and generally becomes bilateral and permanent. Changes in the eye tend to be asymptomatic. The disease is more frequent in women than in men, with outlook being more favourable in men. Many patients improve without treatment. The treatment of choice is IV cortico-steroids and IV IgG. This has been the most widely-accepted theory for Goya's condition since 2008.⁸

Cogan syndrome: Cogan syndrome is a rare form of non-syphilitic interstitial keratitis with auditory and vestibular effects. Its cause is unknown, but its prognosis is good. Although its effects might explain Goya's illness, his friends' letters never describe Goya as having red eyes.¹³

Other types of vasculitis: Polyarteritis nodosa and giant cell arteritis may manifest with visual and auditory disturbances. However, their prognosis is poor when untreated, making it unlikely that either would have caused Goya's illness.

Vascular aetiology

Anterior inferior cerebellar artery (AICA) infarct: Apart from acute vertigo and deafness, these events present with other brainstem signs such as ataxia, bilateral facial paralysis, and hemianaesthesia cruciata. Such infarcts generally leave permanent sequelae. Goya smoked, but his illness was not preceded by an ictal episode. Prior to experiencing vertigo, he suffered from intense headache, which is rare in AICA infarct.

Mitochondrial disease: These diseases may mimic viral encephalitis and produce lasting hypoacusia. In Goya's case, the absence of subsequent relapses means that his disease was unlikely to have been mitochondrial in origin.

Toxic Aetiology.

Lead poisoning: This very compelling theory was put forth in 1972.¹⁴ White lead or ceruse was the pigment used to prepare white paint. It was very toxic, especially if inhaled, which occurred frequently while the pigment

was being ground. The resulting powder was then mixed with oil to make paint. However, there is no mention of fluctuations in his level of consciousness, convulsions, or signs of cognitive deterioration which would support the lead encephalopathy theory. Arguments against this theory are that lead encephalopathy in adults is infrequent (it most commonly occurs in children who ingest lead). In addition, cranial nerve involvement would be extremely rare, and were it to occur, the facial or oculomotor nerves might be affected, but not the vestibulocochlear nerves.¹⁵ If lead poisoning were to blame, it would also be very odd for the same atypical symptoms of lead poisoning to be recurrent; Goya had episodes that were similar, although less severe, in 1777 and 1790. An argument in favour of this theory is that a letter reports that he suffered an episode of arm paralysis that resolved without consequences. He may have suffered from a disorder of the cranial nerves (8th pair) and radial nerve, which is common in lead poisoning. Hearing loss has been reported in cases of exposure to lead in the workplace; however, it is more common to find an increase in I-V interpeak latencies of brainstem auditory evoked potentials.¹⁶ Despite the above, retrobulbar neuritis and papillary atrophy are more common signs of chronic exposure to lead for levels between 40 and 60 ng/dl.¹⁷ Letters also mention that Goya suffered from abdominal colic typical of lead poisoning, but there were no signs of lead encephalopathy. No one suffering from the consequences of encephalopathy will report increased artistic skill. Another argument against the lead-poisoning theory is that a workman named Pedro Gómez ground and prepared Goya's paints for 27 years and never suffered from intoxication.

Cinchonism: Cinchona bark has a high quinine content. In 1620, Spanish Jesuits were the first Europeans to learn about the medicinal properties of cinchona bark in Peru. Juan de Lugo first used cinchona bark to treat the Countess of Chinchón's malaria in 1640. By the 18th century, it was the treatment of choice for malaria.⁹

Quinine poisoning causes ophthalmological symptoms (vision loss, which may be only temporary), ear symptoms (vertigo, hypoacusia, and tinnitus), encephalopathy (headache, delirium, or even coma), gastrointestinal symptoms (abdominal pain, nausea, and diarrhoea), and cardiac and haematological symptoms (arrhythmia and anaemia) All of the above symptoms are consistent with those suffered by Goya. The artist knew that malaria was treated with cinchona bark. In a letter dated 25 August

1787, Goya recommended it to his friend Martin Zapater and mentioned having bought him some.² Either malaria or prolonged treatment with high doses of quinine could have increased damage to the cochlea and made Goya's deafness permanent.¹³

4. Influence of the illness on Goya's paintings

No matter the origin of Goya's disease, it made him reflect on how he was to lead his life.⁸ In the 18th century, the deaf suffered from social isolation. Although Goya could read lips and eventually learned sign language, he had to give up teaching at the Royal Academy of Fine Arts. Being deaf in a court in which talent provoked envy was also a risk. Goya, faced with the fear of losing his position as the court painter, which was compounded by his inability to hear gossip, was plagued by thoughts that were certainly obsessive, if not paranoid.

In March 1794, the director of the Royal Tapestry Factory in Madrid wrote that he had heard that Goya "was now completely incapable of painting as the result of a grave accident he had suffered". Such a rumour could have jeopardised his career.¹² As soon as he was able to walk again, he threw his efforts into convincing Madrid's artistic circles that his skills as a painter were undimmed. He sent the following message to Bernardo de Iriarte, the vice-chancellor of the Academy, in January 1794: "In order to make use of an imagination tormented by the thought of my sufferings, and to partially compensate the considerable expenses they have caused me, I decided to undertake a series of cabinet pictures".² Of a total of twelve paintings, three depict disasters, one shows a travelling theatre, and another the inside of a prison, another a lunatic asylum; the remaining six are bullfighting scenes. Twenty years later, he completed *Tauromaquia*, a series of smaller bullfight-themed pictures with strange, dreamlike images. The change in his artistic style was undeniable. From using a luminous style to show bucolic scenes abounding with colour, he went on to paint disasters, prisons, and insane asylums in dark tones.¹³

Another frequently mentioned theory is that Goya suffered from low-level schizophrenia with three episodes coinciding with his apathetic periods, followed by frenetic activity, and that he never experienced overall personality deterioration.¹⁸ Schizophrenia gives rise to obsessions and stereotyped behaviour rather than originality and innovation. The painter's aunt and uncle, bearing the surname Lucientes, were committed to the

Zaragoza insane asylum between 1762 and 1766.⁴ Goya visited the asylum; his letter dated 7 January 1794 to Bernardo de Iriarte of the Academy of San Fernando stated that he was working on a scene of “a yard with lunatics, and two of them fighting completely naked while their warden beats them, and others in sacks; (it is a scene I witnessed at Zaragoza)”². The theory that Goya had schizophrenia can be ruled out by his subsequent recovery. During his months of illness, when he lost his hearing, his symptoms may have reflected reactive depression.¹⁸

This illness was a turning point that changed his situation in life. It inspired him to cling more fiercely to life, paint what he wished, and to do so quickly as death was approaching.⁴ The change in his artistic style was not directly caused by his illness, although his deafness probably improved his visual composition.⁸ His personal experiences and his desire to share the frustrations he witnessed in such a tumultuous time may have caused the changes in his style and subject matter.⁵

Although he painted other large portraits after his illness, the catastrophes he had witnessed changed his idea of art and inspired him to denounce the consequences of the war.¹³ His *Disasters of War* images are so harsh that they were not made public until many years after his death.⁴

When he suffered another bout of serious illness in 1819, his spirits sank again,³ resulting in another change in style which we see in his Black Paintings.

5. Black Paintings from Quinta del Sordo (1820-1823)

While they may not be to everyone's taste, the Black Paintings leave no one indifferent to their power. These stark pictures were completed with only a few colours: dirty white mixed with heavy black, ochre, and streaks of red and yellow. Goya did not initially intend to paint the terrifying works that survived; they started out as pastoral scenes. Radiographic analysis of *Procession of the Holy Office* reveals a luminous landscape of a river and an arched bridge beneath. Likewise, *Saturn Devouring His Son* was painted over a sketch of a dancer. The rooms whose walls he painted were large, measuring 9 by 4.5 metres. The entryway contained two pictures, one of Leocadia leaning on a tomb (an underlying sketch shows her leaning on a mantelpiece); the other was of an old man with a long white beard. *Judith and Holofernes*

was added later. Goya's paintings were inspired by the Romantic period, with their daring use of contrast, darkness, and points of light. This section will describe some of the first-storey paintings before touching on the ground floor paintings completed at a later date.^{19,20}

First-storey paintings

Atropos/The Fates (1820-1821).

Museo Nacional del Prado.

This Black Painting was found on the first floor of the house. Unlike the ground floor paintings, which were completed at a later date and only feature tones of black and sepia, the first floor paintings are not completely dark.¹⁹ The painting in question shows the three Fates, with Atropos at the right bearing the scissors used to cut the thread of life, and Lachesis in the centre with a mirror, symbolising the ephemeral. Klotho, at the left, holds up a statue that may be the one used by Prometheus to shape the first man. The fourth flying figure, whose hands seem to be tied behind his back, may represent Prometheus being punished by Jupiter.

Fight with cudgels (1820-1821).

Museo Nacional del Prado.

In Catalonia and Aragon at that time, duels with cudgels were still fought until one of the contenders died. This is one of the most often repeated motifs in Goya's works: that mankind is condemned to destroy itself. The mountain landscape in the background may symbolise the prison of life.

Asmodeus/Fantastic vision (1820-1821).

Museo Nacional del Prado.

In this painting, a man is carried through the air by a diabolical being (Asmodeus is a Biblical demon). Some authors¹⁹ interpret the painting as an allegory for opposition to Ferdinand VII's reprisals in 1820 against the liberals seeking refuge at the Rock of Gibraltar.

The Dog (1820-1821).

Museo Nacional del Prado.

Like other paintings on the first floor, this one features ochre tones instead of black. *The Dog* also presents the recurring motif of the futility of struggling against fate. Like the dog, which has done nothing to deserve being buried in shifting sand, man is destroyed by the harshness of nature.

Ground floor paintings

Witches' Sabbath (1821-1823).

Museo Nacional del Prado.

All of these paintings are done in shades of sepia and black, and their common theme is Saturn, the symbol of old age, melancholy, magic, and destruction. Saturn is also the god of painters. *Witches' Sabbath* portrays witchcraft, another omnipresent motif in Goya's paintings. The painting reveals witches and warlocks huddled around a massive male goat (Capricorn under the influence of Saturn).

The faceless woman seated to the side may represent Goya's companion Leocadia as the impassive observer of Goya's painting, or perhaps a young apprentice of witchcraft. Martínez Cubells, the art restorer who transferred the murals to canvas, eliminated a metre of landscape to the left of the young woman¹⁹ (Fig. 5).



Figure 5. Goya. *Witches' Sabbath*. 1821-1823. Oil mural transferred to canvas. 140 x 438 cm. Madrid. Museo del Prado.

Procession of the Holy Office (1820-1823).

Museo Nacional del Prado.

In this painting of procession of the devout, Goya satirises the religious fanaticism which causes individuals to become lost within a dehumanising crowd. The faces in the foreground are disfigured, and their mouths are drawn as large dark voids. Because of his deafness, Goya was a keen observer of people's mouths.⁴

Saturn Devouring His Son (1821-1823).

Museo Nacional del Prado.

Saturn –Cronus in Greek mythology– married Ops and had several children. His mother Terra (Gaia in Greek) predicted that one of them would cast down Saturn; Saturn then devoured all of his children except Jupiter, whom Terra had hidden on Crete. When he was grown, Jupiter overthrew his father and became king of all the gods.

Goya managed to produce a startling and emotional image using just a few brush strokes. Some scholars²⁰

believe it to be an allegory of the Holy Office of the Inquisition, or the absolute power held by Fernando VII. Saturn represents a revolution that consumed its own children in the end. Others have said that the body the god is devouring is female, which would link this picture to the following one depicting Judith's assassination of Holofernes (Fig. 6).

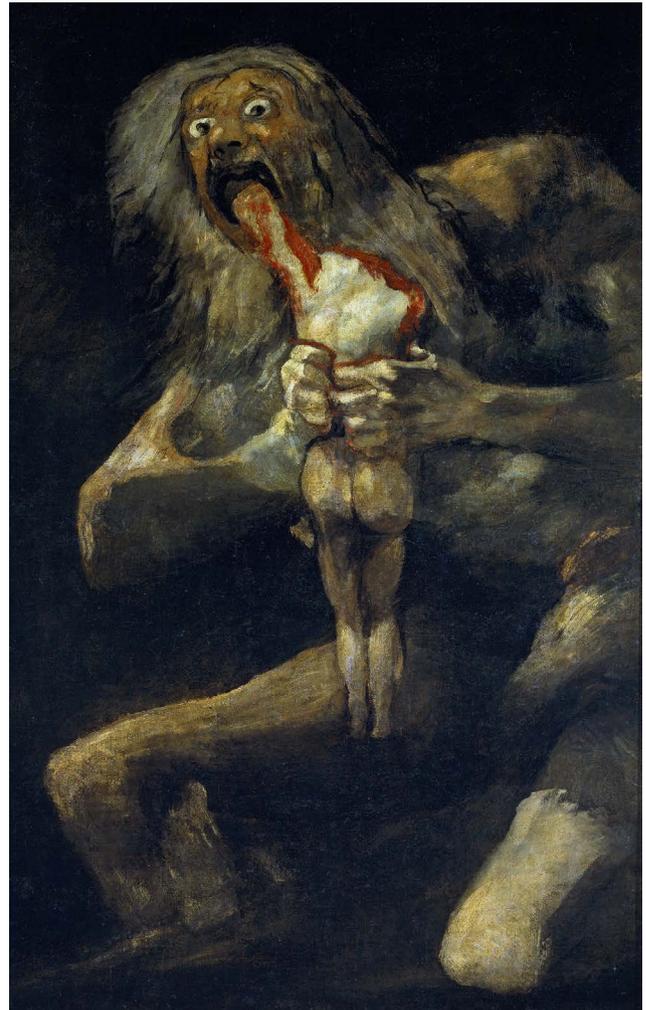


Figure 6. Goya. *Saturn Devouring His Son*. 1821-1823. Oil mural transferred to canvas, 146 x 83 cm. Madrid. Museo del Prado.

Conclusion

Goya, a genius both before and after his illness, was a painter by vocation. None of the possible diagnoses mentioned here can be proved conclusively. Goya's illness may best be explained by Susac's syndrome, but we must be wary of the tendency to attribute rare diseases to exceptional people. Another very compelling theory is that he had cerebral malaria, and that over time, high doses of quinine (cinchona bark) may have caused

cinchonism and permanent hearing loss. Analysis of relevant texts seems to indicate that his brush with death let him overcome personal inhibitions and social conventions and paint whatever he wanted. After his illness, he was able to depict his fears, the nature of evil, and the tragedy of war. The change in his artistic style was not a direct result of his disease, although his deafness probably improved his visual composition. His personal experiences and his need to express the frustrations of the troubled times in which he lived may have led him to change his artistic style and subject matter.

Conflicts of interest

The author has no conflicts of interest to declare.

Images

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References

1. Goya F. Cartas a Martín Zapater. Águeda M, de Salas X, editors. Madrid: Ediciones Turner; 1982. p. 3, 26, 99, 101, 126, 129.
2. Symmons S, Troutman P. Goya: a life in letters. Londres: Pimlico; 2004.
3. Zorrilla de Weiss, L. Cartas a Leandro Fernández de Moratín, 28 de abril y 13 de mayo de 1828, Madrid: Biblioteca Nacional; MS 12963-40.
4. Hughes, R. Goya. Barcelona: Galaxia Gutenberg; 2004.
5. Ortega y Gasset, J. Goya. Madrid: Ed. Revista de Occidente; 1966.
6. Maffei, R. Goya. La vida y el arte. Las obras maestras. Milan: RCS Libri; 2003.
7. Muller PE. Goya's Black Paintings. New York: Hispanic Society; 1984. p. 37.
8. Smith PE, Chitty CN, Williams G, Stephens D. Goya's deafness. *Pract Neurol*. 2008;8:370-377.
9. Bruce-Chwatt L, de Zulueta J. The Rise and Fall of Malaria in Europe. New York: Oxford University Press; 1980. p. 123-30.
10. Barrat HJ, Miller D, Rudge P. The site of the lesion causing deafness in multiple sclerosis. *Scand Audiol*. 1988;17:67-71.
11. Cawthorne T. Goya's illness. *Proc R Soc Med*. 1962;55:213-17.
12. Susac J, Hardman J, Selhorst J. Microangiopathy of the brain and retina. *Neurology*. 1979;29:3313.
13. Ravin JG, Ravin TB. What ailed Goya? *Surv Ophthalmol*. 1999;44:163-70.
14. Niederland WG. Goya's illness: a case of lead encephalopathy?. *NY State J Med*. 1972;413-8.
15. Karai I, Horiguchi SH, Nischikawa N. Optic atrophy with visual field deficit in workers occupationally exposed to lead for 30 years. *J Toxicol Clin*. 1982;19:409.
16. Rowland LP, editor. *Merritt's textbook of Neurology*. 8th edition. Philadelphia: Lea & Febiger; 1989.
17. Otto DA, Fox DA. Auditory and visual dysfunction following lead exposure. *Neurotoxicology*. 1993;14:191.
18. Vallejo Nágera, JA. *Locos egregios*. Madrid: Dossat; 1982. p. 217-240.
19. Aguilera EM. *Las Pinturas Negras de Goya*. Madrid: Nuestra Raza; 1935.
20. Sánchez Cantón, FJ. *Goya y sus pinturas negras en La Quinta del Sordo*. Barcelona: Argos Vergara; 1963.