

Neurology and medicine in Baroque painting

L. C. Álvaro

Department of Neurology, Hospital de Basurto, Bilbao, Spain.
Department of Neurosciences, Universidad del País Vasco, Leioa, Spain.

ABSTRACT

Introduction. Paintings constitute a historical source that portrays medical and neurological disorders. The Baroque period is especially fruitful in this respect, due to the pioneering use of faithful, veristic representation of natural models. For these reasons, this study will apply a neurological and historical perspective to that period.

Methods. We studied Baroque paintings from the Prado Museum in Madrid, the Bilbao Fine Arts Museum, and the catalogues from exhibitions at the Prado Museum of the work of Georges de La Tour (2016) and Ribera (*Pinturas* [Paintings], 1992; and *Dibujos* [Drawings], 2016).

Results. In the work of Georges de La Tour, evidence was found of focal dystonia and Meige syndrome (*The musicians' brawl* and *Hurdy-gurdy player with hat*), as well as deficiency diseases (pellagra and blindness in *The pea eaters*, anasarca in *The flea catcher*). Ribera's paintings portray spastic hemiparesis in *The clubfoot*, and a complex endocrine disorder in the powerfully human *Magdalena Ventura with her husband and son*. His drawings depict physical and emotional pain; grotesque deformities; allegorical figures with facial deformities representing moral values; and drawings of documentary interest for health researchers. Finally, Juan Bautista Maíno's depiction of Saint Agabus shows cervical dystonia, reinforcing the compassionate appearance of the monk.

Conclusions. The naturalism that can be seen in Baroque painting has enabled us to identify a range of medical and neurological disorders in the images analysed. The moralising use of these conditions allows us to draw historical conclusions from the images. A broader neurohistorical review of this period of art history would be worthwhile.

KEYWORDS

Painting and neurology, art and medicine, Meige syndrome, pellagra, Baroque painting

Introduction

Baroque art represents a break with Renaissance classicism, and is characterised by a great expressive vitality due to its rich use of colour and form. The purpose of art was to effectively stir feeling in the viewer. There are historical reasons for artists' need to do this: Europe was undergoing a religious rupture, with southern European countries attempting to neutralise the Protestant Reformation. This led to the birth of the Counter-

Reformation, in which Spain played an important role. Artists had to create an impact on viewers; their work had to reflect the grandeur of the beliefs, history, and dogma of official Catholic doctrine. There could be no doubt as to the Church's elevation and triumph over the new forms of religion from central and northern Europe, beginning with Erasmus of Rotterdam. A return to Renaissance classicism would not be sufficient for this purpose; the 18th century demanded magnificence of the new approach to form and style.

The radical new forms Baroque painting adopted to impact viewers are defined by three characteristics. The best known is the use of contrast, with the chiaroscuro and tenebrism developed by Caravaggio quickly being adopted by painters across Europe. Another feature is artists' bold use of new colour combinations, which afforded their work a new realism. Finally, they used natural models, and no longer idealised them in the characteristic way of Renaissance painting.¹

This use of natural models is the most important feature for the purposes of our descriptions. If Renaissance painters used repeated models, representing compassionate, idealised figures that viewers could worship, then Baroque art sought for viewers to feel identified and attracted to the images using naturalistic depictions. Characters are very frequently shown in street scenes, either from sketches taken in the moment, or painted from real models brought to the artist's studio. This gives rise to a verism in the portrayal of the figures, which are often far removed from the formal beauty valued in earlier periods.

The veristic representation favoured by Baroque painters includes the most diverse of physical imperfections or deformities. The resulting ugliness constituted an effective way of reaching the average viewer, who would recognise the setting and theme, allowing the artist to transmit a moralising message. Furthermore, Baroque naturalism enabled the representation of postures, movements, and an authentic medical and neurological semiology of the models in general, with artists exploiting and strengthening these details. This justifies the neurohistorical interest of these works.

The purpose of this article is to describe clinical features of these Baroque portrayals of natural models, which will in turn enable a semiological analysis of the figures in question. These images may provide details which are of historical and not solely neurological value.

Methods

We reviewed Baroque paintings at the Prado Museum in Madrid and the Bilbao Fine Arts Museum, and the catalogues from exhibitions at the Prado Museum of the work of Georges de La Tour (2016) and Jusepe de Ribera (1992 and 2017).²⁻⁴ These museums were selected due to their geographical convenience for the author. Their wealth of Baroque paintings and the exhibitions cited (all of which were visited and studied by the author) revealed an extensive sample of images from the period.



Figure 1. *The musicians' brawl*. The surprised look of the woman to the left is due to her discovery that the hurdy-gurdy player is not truly blind. He is able to open his left eye sufficiently to overcome the forced contraction of the palpebral orbicularis, secondary to a focal dystonia which makes the musician functionally blind (see Figure 2A).

The images taken from these sources were analysed for potential neurological content, from the perspectives of clinical information and societal and historical context.

Results

We found images of interest by three painters: Georges de La Tour, Jusepe de Ribera, and Juan Bautista Maíno. The images are described below.

Georges de La Tour

1. *The musicians' brawl*

The official explanation (cited at the exhibition and in the catalogue) of this scene (Figures 1 and 2A) is that the lady to the left has discovered that the musician holding the hurdy-gurdy is not blind, hence the look of surprise on her face. The most interesting detail of the painting for our purposes is the intense frontalis muscle contraction observed in the hurdy-gurdy player. This is more pronounced in the left side, allowing him to see by half-opening the left eye. Such a contraction can only be the result of an effort to overcome a sustained, involuntary closure of the eyelids. The absence of wrinkles over the orbicularis oculi muscle, particularly in the lower part, stands in contrast to the wrinkles of the adjacent skin around the eyes and on the cheeks (Figure 2A). Based on this, we would consider hypertrophy of the orbicularis oculi muscle, also directly visible in the left side of the subject's face. This hypertrophy directly causes forced



Figure 2. Note the forced closure of the eyelid (A) and only partial ability to open the right eye; the image shows detail from Figure 1. Considering also the jaw displacement appreciable in the musician to the right (B), he would meet the diagnostic criteria for Meige syndrome.

contraction of the orbicularis oculi muscle in addition to closure of the eyelid. The other musician can be seen defending himself by squeezing a lemon into the blind man's face, doubtless with the intention of further damaging his adversary's eyes with the acid and fending him off. His companions, to the right of the image, do not know the origin of the fight, however, and can be seen laughing at the situation. The woman's surprise is justified: effectively, the blind man is able to see, but only momentarily, during which time he is able to surmount his sustained palpebral dystonia. In other words, both situations were true: the musician was blind, because of his closed eyelids, but he could see for as long as he was able to open them.

2. Hurdy-gurdy player with hat

This painting (Figure 2B) features the same model as *The musicians' brawl*. We can observe in this image that the musician's mouth is not aligned when it opens. The vertical prolongation of the nose to the centre of the mouth and the horizontal line of the mouth do not meet at right angles: rather, the mouth opens with a leftward and downward slant. This is more easily appreciated when the image is compared to another model, who is portrayed with the mouth closed (Figure 3). The two symptoms together (forced palpebral contraction and involuntary displacement of the jaw) constitute Meige syndrome, which may have affected this musician.



Figure 3. Note the centred mouth position of this other hurdy-gurdy player from the same painter and period.

3. *The pea eaters*

In this painting (Figure 4), erythema is clearly visible in the man's hands, with less severe involvement of the face. Erythema on the left hand particularly stands out, even against the red background of his tunic. This can be seen by comparing the left hand with the colour of his right hand and forehead and the old woman's skin. This is highly suggestive of pellagra, a nutritional disease which is strongly linked to dietary deficiencies. In the first half of the 17th century, poor nutrition was a reality in the painter's native Lorraine, which was at once engaged in wars with France and suffering the poor harvests that devastated Europe during the period known as the Little Ice Age. One of the peaks came in 1650, with



Figure 4. *The pea eaters*. The red tone of the man's left hand and face is evidently suggestive of pellagra. Similarly, other signs of nutritional deficiency can be observed: palpebral oedema in the man's left eye, and the distant gaze of both characters, suggesting blindness.

Europe and the Northern Hemisphere being particularly affected.⁵ Lean harvests caused famine and malnutrition among the population. In these situations, the main staple food would be vegetables such as peas, which have traditionally been associated with such deficiency diseases as niacin deficiency, or pellagra.⁶

Also interesting is the palpebral oedema visible in the man, which is more pronounced in the left eye, and both characters' lost gaze: the man's right eye is looking at the floor, rather than his food, and the woman is looking neither at her food nor making direct eye contact with the viewer. The woman's gaze has been compared with that of the model in Murillo's *Old woman with a hen* (1645; Figure 5), housed at the Alte Pinakothek in Munich.

Finally, another detail of La Tour's painting is the pale skin on the palmar side of the man's left thumb: this skin is white, like the tunic hanging from his shoulder, bringing volume to the figure. This signals that he may also have vitiligo.

4. *The flea catcher*

This painting offers another example of a deficiency disease: in our judgement, this woman has anasarca (Figure 6). This is clearly visible in the abdomen and the smooth, tense skin of the hands, thorax, the top of the



Figure 5. Note the starkly realistic ugliness of this woman depicted by Murillo: she has missing teeth, a yellowish complexion, and the strong hands of a peasant woman. The woman's gaze, exhibiting strabismus, has been compared with that of the woman in Georges de La Tour's *The pea eaters* (see Figure 4).



Figure 6. *The flea catcher.* This painting depicts a classic Baroque scene; in this case the artist has omitted an element, a jar of water where the parasites would be deposited. The woman shows signs of cutaneous oedema in the smooth skin of her chest and legs, and a prominent abdomen which could be interpreted either as further oedema or as pregnancy. In this image, the fleas take on symbolic value, evoking the woman's sin and penitence.

left foot and the upper thighs. The prominent abdomen may also be due to generalised oedema, or a sign of pregnancy, in which case we would most probably be looking at a case of preeclampsia. The realism we can observe in La Tour's work demonstrates the symbolic value of a pregnancy which would not have been considered morally "normal" at the time, meriting social condemnation and penitence, represented here by the fleas and the task of removing them.

Jusepe de Ribera

1. *The clubfoot* (1642)

The child in this painting (Figure 7) displays signs of spasticity in his right limbs: forced extension of the elbow and palmar flexion of the wrist and fingers; the leg is also extended, with only the forefoot supporting his weight. Varus deformity is also apparent. The subject's age suggests that these features are sequelae of cerebral palsy. In his left hand, the child carries a document bearing the Latin phrase "Da mihi alimo / sinam propter amorem dei" ("Give me alms, for the love of God"), probably a licence to beg issued by the Napolitan authorities (Naples was a Spanish viceroyalty at the time). The image paints a stark picture of the boy, who is shown smiling at the viewer and captured from an angle that elevates and humanises him. The club-footed boy appears exposed, carrying his crutch, standing against a pale background with no hint of tenebrism. The painting becomes one of social criticism; this sense is enhanced by the neurological disorder.

2. *Magdalena Ventura with her husband and son* (1631)

The lower right part of the painting (Figure 8) recounts in Latin the story of the subject, Magdalena Ventura, born in the Italian region of Abruzzi. At the age of 37, she began to experience body hair and beard growth. Her last child was born when she was 52 years old; the painting shows her nursing him, with her husband standing in the background, just behind her. The painting was commissioned by the viceroy of Naples, at a time when it was traditional to make paintings depicting dwarves and deformed subjects. Ribera makes use of tenebrism, a style which allows the subject matter to be highlighted against a dark, austere, sombre background. The woman, with a thick beard, receding hairline, and masculine hands, nurses her child and fixes her eyes on the viewer with a look of despondent acceptance. Behind her, her



Figure 7. *The clubfoot*, by Jusepe de Ribera or Lo Spagnoletto. The boy displays signs of spastic hemiparesis in his right limbs. This is most pronounced in the hand and foot, which is affected with varus deformity, with only the forefoot bearing weight. This portrait of a young beggar is highly veristic, and is surely intended as social criticism.



Figure 8. *Magdalena Ventura with her husband and son*, by Jusepe de Ribera. In the woman, we can observe virilisation, with baldness, a thick beard, and masculine hands. Surprisingly, she remained fertile, hence the child which she is shown breastfeeding at the age of 52 years old; the legend in Latin to the right offers an account of the woman's life. The dignity with which the couple are treated and the symbolism of the shell and the spindle are also noteworthy.

husband also has a resigned, compassionate expression, directing his gaze at the viewer, who becomes involved in the scene. The woman portrayed in the image is most probably a case of adult virilisation, and surprisingly, is still fertile at such a late age. Ribera treats the scene with careful dignity, which is particularly striking in the respect and nobility of the couple's faces. The symbols at the right of the image confirm this element: we can see a wool spindle, symbolising femininity, and a seashell, a symbol of hermaphroditism.⁷ (p351-353)

3. *Head of a satyr in pain, Study for martyrdom of Saint Sebastian, and Scene of the Inquisition*

These drawings (Figure 9) represent both physical and emotional suffering, observable in the subjects' contorted facial expressions, averted gazes, and defensive postures. The satyr, depicted screaming, is visibly deformed and suffering; this is demonstrated in its tense expression,

together with the lost gaze and the goat's wattle hanging from the left side of its neck. The drawing of Saint Sebastian is a good example of an anatomical drawing of a forced posture caused by pain. The difficulty of such a study poses a challenge to the draughtsman. Other good examples are Ribera's portrayals (not reproduced here) of Saint Bartholomew, who was flayed alive. These drawings were generally of natural models, whom Ribera used for anatomical studies. In the Inquisition scene, the prisoner is seen hanging by the wrists, no doubt in great pain, judging from his visibly dislocated shoulders. He most likely also shows vagus nerve symptoms in reaction to the pain itself, explaining the loss of sphincter control and consequent involuntary defecation, which is also clearly visible.

4. *Grotesque head and Large grotesque head*

This drawing (Figure 10, left) depicts an example of



Figure 9. *Head of a satyr in pain, Study for martyrdom of Saint Sebastian, and Scene of the Inquisition.* A series of representations of physical and emotional suffering.

extreme ugliness, very much to the taste of the artist and the Baroque tradition in general. The woman, who has the air of a procuress about her, has a number of cutaneous tumours on her face, many with hair growth; these would probably be nevus or fibromas. There are also two large sacs hanging from her neck, reaching the upper thorax. The shape and location of these are suggestive of a large goitre. Finally, the pointed shape of the ears brings a fantastical, imaginative aspect to the image, underlining the perfidy or malignance of the woman: these are the pointed ears of a satyr, a mythological character that is part human, part beast, representing untameable Bacchanalian or Dionysiac instincts.^{7(p363-366)}

5. *Head with small figures on the hat and Head of a satyr*

These drawings (Figure 11) show grotesque figures with peculiar facial features. In the left-hand image, we can note hypertelorism and a flattened nose bridge, suggestive of a midline brain malformation, very possibly associated with intellectual disability. This hypothesis is further supported by the appreciable strabismus, with pronounced right-eye exophoria. The face gives a sensation of wickedness and ill will, which at the time were strongly linked to dysmorphic features and ugliness. This is very probably an allegorical portrayal

of some historical character. This is also reflected in the figures on the hat, particularly the one on the left, which is shown defecating, and the two hanging from the tassels of the hat: the one on the right is suspended upside-down, and the one on the left is hanged by the neck, strengthening the sensation of horror in the image. These figures are the product of the artist's imagination, foreshadowing Goya's *Caprichos*. The satyr to the left, displaying the typical horns and pointed ears, is another imaginative image by Ribera. This drawing was selected for its evocation of intellectual disability, suggested by the half-open mouth, the gaze into the distance, and the atrophy of the masseter muscle.

6. *Group of sick and crippled people*

This scene (Figure 12) appears to be almost documentary; the artist's quick strokes allowed him to capture street figures, which he would later use as the basis for oil paintings. We can see a young man pulling a crippled or sick person on a cart and surrounded by a figure on the ground, another figure walking with crutches, and some old, bearded men limping. The setting is probably in or near a lazaretto. Ribera's drawing is almost journalistic in style, years before that profession was invented.



Figure 10. Portrayal of extreme deformity, with two old people displaying goitre. The tumours hang from the upper neck like two large, lobular sacs of rough skin, almost scrotal in form. The faces of both characters show wart-like growths, some sprouting hair. Together with the exaggerated swelling on the neck, these details give a veristic, caricatured tone to the portraits. The woman on the left has the air of a procuress; the hat and collar of the man on the right recall a *commedia dell'arte* character.

Juan Bautista Maíno

1. *St. Agabus*

The painting (Figure 13) shows a Carmelite monk, considered to be one of the saints of the primitive Christian church.⁸ We should note the forced flexion of the figure's neck to the right side, with the face touching the right shoulder. This position, if sustained, is highly suggestive of cervical dystonia with laterocollis. The monk, who has a compassionate expression, is holding a model of a church, as per hagiographic tradition. Saint Agabus emigrated from Antioch, in modern-day Turkey, to Jerusalem, where he was martyred. He prophesied the torture of Paul the Apostle, whom he knew, and a famine in the year 50. In his prediction of famine, he called for solidarity between Christian peoples, which historical tradition maintains that he achieved for those years of food shortage.⁸ In the image, the monk's compassionate expression and the submissive appearance caused by the position of his neck contribute to the credibility of the character's sainthood, celebrated on 13 February in the western Christian tradition and on 8 April in the Orthodox tradition.

Discussion

As a source of historical representation, art has contributed reasonably accurate descriptions of a range of medical disorders, with neurological conditions being a prime example of this. Disorders of movement and posture are the most appropriate for visual representation, although some casuistic descriptions have included practically all groups of neurological diseases.⁹⁻¹² The Baroque period in art and painting is defined by naturalism or verism: faithful depictions of the models, typically portraying them as natural characters, rather than idealising them. This faithful representation was the motive for this study. For these reasons, and unlike previous research, which has focused on individual cases or groups of diseases, this paper fundamentally addresses a historical period in order to discuss aspects of neurological and medical interest.

These ideas are well demonstrated in the selected paintings by Georges de La Tour (1593-1652). These pieces firstly display neurological and medical semiological details, and secondly illustrate certain fundamental social truths of the painter's period and setting: the duchy of Lorraine. During a long war against the French, Lorraine was blighted by epidemics of plague, and its crops were devastated by extremely cold winters, leading to famines at the time these paintings were made.² In terms of semiology, we should firstly note the palpebral dystonia observed in the hurdy-gurdy player in *The musicians' brawl*, who shows direct and indirect signs of forced eyelid closure. We can also deduce an associated apraxia in opening the eyelids, due to involvement of the levator palpebrae muscle, which may be associated to the palpebral dystonia.⁶ Furthermore, the musician displays forced contraction of the oromandibular muscles, specifically the orbicularis oris muscle, causing the misalignment of the jaw that is visible in the same model in Figure 2. Ten cases of combined cranial and oromandibular dystonia were described in 1910 by the French neurologist Henry Meige (1866-1940), hence the name of the condition. However, in 1976, David Marsden named the disease Brueghel syndrome, describing the combination of dystonic contraction in the orbicular muscles of the eyelids and mouth in the painting *De gaper* or *The yawner* by the Renaissance painter Brueghel the Elder (Figure 14).¹³ Marsden's suggestion was not adopted as the name "Meige syndrome" was already extensively used, among other reasons. If we compare



Figure 11. *Head with small figures on the hat (A) and Head of a satyr (B).* The face (A) takes on a malicious feel due to the ugliness of his hypertelorism, flattened nose bridge, and strabismus. The men on the hat and hanging (one by the neck) from the sides bring the image a fantastical quality. The satyr (B), on the other hand, evokes contradictory, almost compassionate feelings, due to the appearance of intellectual disability caused by the half-open mouth and the distant gaze.



Figure 12. *Group of sick and crippled people.* A group of crippled and disabled characters being led through the street by a young man pulling a cart, with a dog at his heel. Rather than having any symbolic value, this image is more a sketch, most probably taken from real models, and is essentially of documentary value.

Bruegel's painting with La Tour's, we can appreciate the similarity of the muscular contraction, which Bruegel shows in a single image, while La Tour portrays the same model in two paintings. Umberto Eco's¹⁴ book *On ugliness* includes *The musicians' brawl* as a key example of ugliness in Baroque painting. In art history, the physical traits characterising ugliness have been of importance in revealing moral or social conditions which art itself was interested in highlighting or using. Unlike beauty, ugliness was associated with moral baseness. The pictorial nature of Baroque painting makes it of particular interest in studying deformities. These are well exemplified by dystonia, as seen in the work of Georges de La Tour (and before him by Bruegel the Elder, in the early Renaissance).

Nutritional deficiencies were and are a scourge, devastating tranches of society, particularly in predominantly rural communities, which are highly vulnerable to adverse atmospheric phenomena. The poor harvests in La Tour's lifetime are explained by the Little Ice Age that affected Europe,⁵ together with years of war between Lorraine and France and a population reduction due to an outbreak of plague in the early 17th century.¹⁵ In times of famine, populations rely on whichever crops continue to be abundant in their area. It is no coincidence that the first description of pellagra by Gaspar Casal¹⁶ when he was practising in Asturias (1735) was in rural populations where corn, the staple food, constituted almost the entire diet. The famines in Lorraine would have made easily cultivated crops such



Figure 13. *St. Agabus*. Note the forced lateral flexion of the neck to the right side, causing the face to come into contact with the right shoulder. This is probably secondary to cervical dystonia with laterocollis. This posture, together with the character's fixed eye contact with the spectator, creates a compassionate image which very much adheres to Christian hagiography; the painter himself, a Dominican friar, was also a part of this tradition.



Figure 14. *De gaper* or *The yawner*, by Bruegel the Elder. After seeing this painting, David Marsden suggested the painter's name as an eponym for the combination of ocular and mandibular dystonia. Note the similarities with Georges de La Tour's images of Meige syndrome.

as peas the dominant part of the population's diet, giving rise to deficiencies, which may have included pellagra. Pellagra seems highly probable based on the details of the painting *The pea eaters*. In addition to the cutaneous symptoms of pellagra, we can also observe revealing signs of nutritional deficiencies, such as palpebral oedema and the probable blindness of the couple, perhaps caused by a nutritional optic neuropathy.

Jusepe de Ribera (1591-1652), nicknamed Lo Spagnoletto, was born in Valencia and later trained in Rome. He lived and worked for most of his life in Naples, which was under Spanish rule at the time. Ribera was a master of Baroque verism and chiaroscuro. His interest in veristic portrayals led him to take models from the street and use them in his portraits of philosophers, apostles, and saints. It should be no surprise, then, that we should find cases of neurological disorders in his paintings. The painting *The clubfoot* is a good example of this. This image displays not only lameness due to clubfoot, with only the boy's forefoot bearing weight, but

also evidence of spasticity, which would explain both the character's lameness and the limited mobility of the right hand. Paresis of the right hand would therefore explain why the boy uses his left hand to hold the crutch and the paper. The paretic right hand shows signs of severe spasticity, appreciable in the extension of the arm, the forced palmar flexion of the wrist and hand, and the fact that the boy is able to hold the red cap in his right hand only by supporting it against his trunk, rather than holding it with the hand, which would be more natural, and as he does with the objects in his left hand. The portrayal of character, who appears to be perfectly at ease, may be interpreted as social criticism of a well-rooted official custom whereby the authorities of Naples had to officially approve and issue licences to beggars. However, these customs were further-reaching than this. In the Baroque period, there was a great curiosity around so-called natural phenomena: physical deformities and extraordinary cases of unusually large or small body parts. The authorities would search for people affected

by these conditions and take them to the courts of aristocrats or monarchs, where they would become part of a collection of curiosities and rarities. This was the case with the bearded woman Magdalena Ventura. According to the artist himself, the viceroy of Naples became aware of her existence and had her brought from Abruzzi to Naples. Ribera, working on commission from the viceroy, treated this masculinised woman and her husband with respect, portraying them with a look of serene dignity. The same tradition explains the well-known presence of dwarves and deformed people in the paintings of Velázquez, some of whom show unmistakable signs of achondroplasia or intellectual disability. Other well-known works that have been described in the frame of this taste for the physically grotesque are *Eugenia Martínez Vallejo (clothed and naked)* by Carreño de Miranda, Velázquez' successor as court painter. Gregorio Marañón¹⁷ diagnosed hypercortisolism in this six-year-old girl, who almost certainly had congenital adrenal hyperplasia. In the streets of Avilés (Asturias), where Carreño was born, a 1997 sculpture by Favila portrays the girl from *Eugenia Martínez Vallejo, clothed*.

Further physical imperfections can be seen in Ribera's drawings, where we can appreciate more exaggerated deformities and prominences, with subjects becoming almost caricatures. These drawings depict natural phenomena, although unlike the painting of Magdalena Ventura or Velázquez' or Carreño's paintings of deformed subjects, Ribera did not seek to dignify his subjects. Rather, and far to the contrary, he exaggerated their defects to create morbid characters. This is particularly marked in the drawings shown in Figure 11. *Head with small figures on the hat* can at once be interpreted as a fantastical image from the painter's imagination and as symbolic of some person of the time. The deformities seen in this face give the character an appearance of wickedness. This is reinforced by the small figures resting on the hat, and particularly those hanging from either side, which allude to Dante's *Divine Comedy*: Canto XIX describes how the Malebolges descend from the brink of the eighth circle, with the Simoniacs turned upside-down; in Canto XVIII, flatterers waded in excrement¹⁸; this may be reflected in the man at the top left of the drawing, who can be seen defecating. In this way, the image may represent some rich, greedy, flatterer of the moment, judging by the symbolism seen in the small figures. The ugliness created by the deformities described may be a

resource used by the artist to moralise. In contrast to this drawing, the one beside it in Figure 11 shows the head of a satyr with features of intellectual disability, creating tension and ambiguity between the typical image of the satyr as an enemy of man, and the ideas of kindness and virtue that stem from the innocence of intellectual disability. Ribera was also able to portray in his drawings monstrous characters with enormous goitres and cutaneous tumours, very probably caricatured versions of real models. He was also very skilled in reproducing pain and making fast, almost documentary sketches of groups of disabled people.

The third painter we discussed is Juan Bautista Maíno (1581-1649). Also trained in Italy, Maíno later joined the Dominican Order. A prestigious artist, he was summoned to the royal court, where he became drawing teacher to the future King Philip IV. There, he mentored the young Velázquez, who was also his student. Maíno's realistic treatment of his subjects allowed the description of a case of Steinert myotonic dystrophy in his painting *Portrait of a gentleman*, housed at the Prado Museum.¹⁰ In addition to this description, we can point to *St. Agabus* as an example of cervical dystonia. The figure in this painting clearly displays forced lateral flexion of the neck, which the painter uses masterfully to strengthen the compassionate appearance of the Carmelite monk in the image.

Conflicts of interest

The author has no conflicts of interest to declare.

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