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The Vagina, the Ear, and the Eye: Bodily Orifices and Sight in Miguel de Cervantes's "El Celoso Extremeño"

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Abstract: The complex mythological web of Miguel de Cervantes's *novella* "El celoso extremeño" has been extensively explored by scholars. However, despite the fact that most conducting myths referenced in the novel revolve around themes of vigilance, clandestine gaze, and visual deceit, these topics have not been systematically addressed yet. This present essay intends to bridge this analytical gap by exploring the ways in which mythological parables in "El celoso extremeño" connect with contemporary scientific preoccupations regarding perception, optical illusions, the nature of images and sounds and the ways the human eye and ear perceive them.

Keywords: eye; ear; visual deception; acoustics; early modernity; Miguel de Cervantes; El celoso extremeño; myth; astronomy; gender

1. Introduction

In Miguel de Cervantes's "El celoso extremeño", mythological and scientific discourses are entwined in the fragmented and elusive style that characterizes Cervantes's particular approach to the security of knowledge and truth: most myths that have been identified by scholars as subtexts of this short novel are connected through the themes of gaze, perception, and deceit, thus inviting connections with contemporary scientific discourses focused on optical illusions, light, the nature of images and sounds, and the ways in which the human eye and ear perceive them.

Over recent decades, there has been considerable interest in the topic of science in Cervantes's work, particularly in *Don Quixote*: the most comprehensive studies are José Manuel Sánchez Ron's collection of essays on the fields of geography and navigation, cosmography, astronomy, medicine, mathematics, natural history, and metallurgy in *Don Quixote* (Sánchez Ron 2005) and the Universidad de Salamanca's collaborative volume *La ciencia y la técnica en la época de Cervantes* (María Jesús Mancho Duque 2005).¹ These works attest to Cervantes's awareness of the science of his time through the pervasiveness of scientific language and motifs in *Don Quixote*, even if his attitude towards such knowledge is sometimes contradictory. Shifra Armon, for example, reads *Don Quixote* as a representation of "the failure of outworn and incurious modes of thought" since he is an "incurious character" who clings to "the authority of the printed page" and remains "oblivious to the emerging epistemologies of his time" that unhesitatingly rely on observation and experimentation (Armon 2019, p. 146). Chad Gasta qualifies the author's rendering of scientific knowledge as sometimes "irreverent" but firmly grounded in innovations of his time (Gasta 2011, p. 80), and Félix Schmelzer identifies in *Don Quixote* a subtle critique of science and scientific knowledge that reveals a profound epistemological skepticism towards the conceptual arbitrariness of such descriptions of the world (Schmelzer 2016, p. 146).

Likewise, mythology and Ovidian inspiration in Cervantes's literary production is a well-examined topic.² Furthermore, a significant number of these focus on Cervantes's *novella* "El celoso extremeño": Peter Dunn (1973) illuminates the similarities between Carizales and Pluto, the god of the underworld who kept Eurydice in captivity; Mariano



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Baquero Goyanes, in the prologue to his 1981 edition, describes “El celoso extremeño” as a labyrinth of different mythological references: the labyrinth of Crete, the Trojan horse, Orpheus, Mercury and Argus, the golden apples of the Hesperides, and the infidelity of Venus with Mars. Later, Laura Gómez Íñiguez (1991) reviews the function of these references as comical hyperboles in the text used not only to foreshadow Carrizales’s failure but, most importantly, highlight the laughable asymmetries between glorious tragic mythological characters and utterly pedestrian Cervantine characters whose actions are moved by rather mundane motives. Proupech (1998) focuses on the reference to the golden apples of the Hesperides and the garden of Carrizales’s house as symbols of fertility and sexual pleasure that are absent from his sterile marriage. Pilar Berrio examines Loaysa as an original rendering of Orpheus, who does not perfectly conform to the archetype but rather remains parodically close to it (Berrio 1998, p. 247). More recently, José Manuel Hidalgo (2012) has very convincingly addressed the function of the myths of Pygmalion and Narcissus to develop the topic of mimetic reflection and visual deceit in “El celoso extremeño”.

These two fields for analysis have, however, been dealt with separately in the scholarship, in spite of the fact that the thematic seeds of key myths in the *novella* center on some important scientific preoccupations of Cervantes’s time related to acoustics and optics, two disciplines that Paolo Mancosu examines concurrently in his chapter of *The Cambridge History of Science* since both belonged to the intersectional group of “mixed mathematical” sciences or those “that could be treated by extensive use of arithmetic or geometric techniques, such as astronomy, mechanics, optics, and music” (Mancosu 2008, p. 596). In fact, popular contemporary authors, such as Juan Pérez de Moya and Pedro Sánchez de Viana, offer astronomical/astrological explanations of myths, such as that of Argus and Mercury, in a case of a syncretic and comprehensive approach to knowledge that characterizes humanistic erudition.

Beyond Hidalgo’s thought-provoking analysis, visual deceit has not been systematically examined in “El celoso extremeño” even though Carrizales is explicitly identified with Argus in the *novella*: “De día pensaba, de noche no dormía; él era la ronda y centinela de su casa y el Argos de lo que bien quería” (Cervantes 2020, pp. 105–6). In this mythological allegory, the narrator establishes a direct connection between Carrizales’s sleepless protective zeal and Argus Panoptes, the monster whose body was covered with one hundred eyes that never rested, whom Juno tasked with guarding the nymph Io (transformed into a cow by her husband Jupiter) and was finally defeated by Mercury’s wit and musical skills. A similar tale of the usurpation of a valuable treasure protected by a monster can be traced in the reference to the golden apples of the Hesperides stolen by Heracles in Apollonius’s *Argonautica* after slaying their protector, the ever-vigilant serpent Ladon. A third explicit mythological allegory in “El celoso extremeño” situates the young trickster Loaysa as Orpheus, descending to Hades to retrieve his lover, Eurydice (Leonora), only to lose her by infringing the single rule imposed by Pluto: not to glance at her until they get out of the underworld. Other myths, more subtly referenced in the text, such as Vulcan’s discovery of his wife Venus’s adultery with Mars and Narcissus and Pygmalion’s infatuation with their own reflection or creation, also delve into the revelation of truth to the eyes or the danger of gazing at beauty.

This present study offers an attempt to reconcile these two trends in Cervantine criticism that have focused on either mythology or science as separate and distinct discourses by focusing on sight in “El celoso extremeño” in light of Cervantes’s scientific context in which classical notions of the gaze and its penetrative nature were being contrasted with innovative considerations of light and mechanical interpretations of the workings of the eye.

2. Carrizales’s House: The Body and Its Orifices

Matías Ariel Spector defines Argus as a paradoxical symbol that simultaneously proposes and denies the possibility of effective royal surveillance (Spector 2021, p. 682). In his analysis of Lope de Vega’s comedy *La quinta de Florencia*—published four years before “El celoso extremeño”—he interprets the myth of Argus as an allegory of absolutist

aspirations towards control and its weaknesses. The myth acquires a similar meaning in Cervantes's novel, where the *senex* becomes the lord of a little kingdom that he polices with the help of the eunuch Luis, understood as an extension of Carrizales's eyes (eyes that remain open when the others sleep).³ Parallelism with these political renderings of the myth highlights the parodic impulse of the *novella* by elaborating, once again, on the disparities between Carrizales's inflated efforts for control vis à vis the limited expanse of the space that he intends to govern (a household, not an empire) and the objects of his domineering energies: the feminine bodies that inhabit this little world of his creation, including Luis since he is an emasculated slave (and thus, feminized). Stanislav Zimic points out that Carrizales surrounds Leonora with a service that is "disabled" or "mutilated" in a sexual sense: objectified slaves with no initiative, infantile maids with no desire, a eunuch, and a governess allegedly too old for sexual curiosity. The house itself becomes a tool for perceptual nullification through which Carrizales "se propone incapacitar [a su servidumbre] para cualquier contacto oral, auditivo, visual, material, espiritual, emocional. . . , con el mundo exterior" (Zimic 1991, p. 30). Carrizales's house, then, becomes a space not only of darkness and ignorance (following Dunn (1973, p. 102)) but also of bodily cancellation and physical blindness. Proupech also refers to this idea when he states that "paredes o puertas marcan el límite de los ojos y solo es posible una mirada vertical, la que se dirige al Cielo" (Proupech 1998, p. 496). Carrizales's superhuman vision that extends through walls beyond the turning box in the form of Luis's sentinel eyes is opposed to the impaired sight of women, whose vision is not only obstructed by walls but also forced towards the sky. This is a compelling image when we consider Cervantes's interest in scientific innovations of his time in the fields of astronomy and cosmography (among others). Ironically, these women are forced to look up at the sky at a moment in the history of science when the observation of comets and planets was one of the most controversial scientific concerns, particularly after the publication of Galileo's polemical work *Sidereus Nuncius* in 1610.

Yet, the house, a complex symbol in the text, is not only an instrument but also an object of Carrizales's obsessive repression. It serves as a nullifying tool but also acts as a metonymical representation of the equally nullified bodies that inhabit it. In organicist terms, the house is a feminine body with orifices (vagina, eyes, and ears)⁴ that are obstructed (walled windows and locked doors) by the masculine commandment and where the turning box becomes the weak spot through which the integrity of this closure is disarticulated. The most obvious interpretation for such a symbol is sexual: the turning box is a vagina or an anus broken into by Loaysa's penetrative masculinity.

Connections between sexual penetration and sight can be established using classical cultural notions of aggressive gazing, where sight is entwined with eroticism. In her thought-provoking study of the gaze in the early Roman Empire, Shadi Bartsch addresses the topic of the vulnerability of the eye, citing not only literary sources such as Heliodorus's *Aethiopica* but also scientific literature: Pliny the Elder's *Historia naturalis*, Plutarch's *Quaestiones Convivales*, and the Aristotelian commentator Alexander of Aphrodisias's *Problemata*. In these works, "the eyes function not only as an erogenous zone for the two lovers, but also as the area of easiest bodily access for the malevolent force of an ill-wisher" (Bartsch 2006, p. 69). In "El celoso extremeño", the narrator recounts the way in which Loaysa becomes interested in Leonora as a visual event: "Uno destos galanes [. . .] acertó a mirar la casa del recatado Carrizales y, viéndola siempre cerrada, le tomó gana de saber quién vivía dentro" (Cervantes 2020, p. 107). The trickster acts as an ill-wisher whose desire is inflamed by the sight of such a well-guarded house, later merged with Leonora's body, in yet another metonymical correspondence through the metaphor of the "fortaleza", which stands both for the young woman's beauty and the house: "Supo la condición del viejo, la hermosura de su esposa y el modo que tenía de guardarla; todo lo cual le encendió el deseo de ver si sería posible expugnar, por fuerza o por industria, fortaleza tan guardada" (Cervantes 2020, p. 107). Loaysa is first and foremost an observer: he "sees" the locked house and then wishes to "see" if he

can outdo Carrizales's precautions. The terms "fortaleza" and "expugnar" parody a metaphor common within the tradition of courtly love, where military vocabulary is used to represent the advances of the male lover against the scornful *belle sans merci*, figured as an impregnable fortress that the lover strives to conquer. In a similar fashion, Loaysa's desire is guided by his eyes (like that of the lover in the *amor hereos* tradition) and has a penetrative intention that the narrator does not hesitate to identify as sexually aggressive through the qualifying expression "por fuerza".

On this very same issue, Bartsch refers to Marcus Terentius Varro, who, in his work *De Lingua Latina*, claimed that the verb *videre* ("to see") was derived from *violare* ("to violate") in a case of mistaken etymology that reveals Romans' particular perspective on sight as a form of bodily intrusion analogous to that of the phallus (Bartsch 2006, p. 150). In the same way, the *virote's* infiltration into the house is a symbolic violation of Leonora's feminine body and Carrizales's feminized body simultaneously. It is worth paying attention to the sequence of events through which Loaysa's entrance is described in the text: first, Leonora steals the master key (a metaphor of Carrizales's phallus or patriarchal authority) from her narcotized husband, lying deeply asleep on his bed, who is thus forced into a sexually submissive role and prepared for Loaysa's act of symbolic sodomization (Cervantes 2020, p. 124). Marialonso then puts the key into the lock of the door (note the sexually loaded image of penetration)⁵ and further stops Loaysa, asking him to swear that he will not abuse the alleged virgins that serve at the house. Loaysa's oath itself is full of sexual references: he states that his intention is to "dar[...] gusto y contento en cuanto [sus] fuerzas alcanzaren" and he later uses expressions that evoke sexual prowess ("cuesta arriba", "intemerata eficacia", and "largamente") as well as sexual action ("entradas y salidas del santo Líbano monte"). Loaysa's most telling sexual reference is the proverb "debajo de mal capa suele estar un buen bebedor", where the term "bebedor" means both a drinker and an earthenware pitcher (Cervantes 2020, p. 127). Considering the phallic shape of an earthenware pitcher's mouth, the metaphor becomes a graphic reference to oral sex. Finally, one of the servants pulls him by his breeches into the interior, praising his eloquence by saying that, with such an oath, he would have gained a pass to "la misma sima de Cabra", a further sexual reference to the vagina (Cervantes 2020, p. 128).

However, Loaysa is actually a hermaphroditic character who combines both genders: on the one hand, he acts as a symbol of sexual potency, representing the penetrative phallus, while on the other, he is feminized as an object of admiration.⁶ Parallel to Loaysa's explicit virile sexual prowess, gender ambiguity (or rather, adaptability) is developed in Cervantes's *novella*, an idea suggested by Baquero Goyanes, who affirms that he is "un personaje tocado de rasgos feminizantes" (Cervantes 1976, p. 59). Surprisingly, Loaysa's effeminization in the text also happens through visual acts in two scenes when he offers his own body for admiration: first, the night when the maids behold him for the first time through a hole opened in the turning box, the musician has dressed up with "calzones grandes de tafetán leonado [...], un jubón de lo mismo con trencillas de oro, y una montera de raso de la misma color, con cuello almidonado con grandes puntas y encajes", an attire that (as noted by Antonio Rey Hazas in his edition) characterizes Loaysa as a *lindo* or a flirtatious man considered "afeminado" (Cervantes 2020, p. 120); second, when he has finally made his way into the house, Loaysa stands on a platform, in the middle of the women, who praise different parts of his anatomy (Cervantes 2020, p. 130).

Both scenes can be interpreted as a parodic reversal of the myth of Diana and Actaeon: in "El celoso extremeño", Loaysa's male body becomes the object of female gazes. Thus, in a comic twist, the dissolute musician who precisely intends to bed the virtuous wife, takes on the role of Diana, the goddess of virginity and chastity. This Ovidian myth, unnoticed so far by the critics, is pertinent to confirm the relevance of sight as a theme in "El celoso extremeño" as well as to understanding gender dynamics in the text. The Diana-Actaeon myth is also a key to appreciating the mockery of Renaissance courtly poetry that permeates the maids' praise of Loaysa since this myth informed Petrarch's *Canzoniere* and, by extension, descriptions of a beautiful woman as a composite of details in Renaissance

courtly poetry. According to Nancy Vickers (1981), in the *Canzoniere*, the lyrical voice self-fashions as a conscious Actaeon who obtains a voyeuristic pleasure gazing at Laura/Diana or re-enacting this gaze through his fragmented descriptions and who knows his own fate (transformation and dismemberment). These three elements (gaze, transformation, and dismemberment) are loosely rendered in “El celoso extremeño” without a clearcut demarcation of mythological identities. The second scene referenced above, where Loaysa’s anatomy is commented on, is particularly enlightening:

[Y] una decía: “¡Ay, qué copete que tiene tan lindo y tan rizado!” Otra: “¡Ay qué blancura de dientes! ¡Mal año para piñones mondados que más blancos ni más lindos sean!” Otra: “¡Ay qué ojos tan grandes y tan rasgados! ¡Y por el siglo de mi madre que son verdes, que no parecen sino que son de esmeraldas!” Ésta alababa la boca, aquélla los pies, y todas juntas hicieron dél una menuda anatomía y pepitoria. (Cervantes 2020, p. 130)

As with other myths in the text, role assignation is elusive in the scene: Loaysa is at the same time Diana, clandestinely admired by penetrative eyes, and Actaeon, dismembered by his hounds (the maids) in the rhetorical act of description. On the other hand, Leonora, who “callaba, y le miraba” (Cervantes 2020, p. 130), is both Actaeon, whose tongue fails to articulate a message after the vengeful goddess transforms him into a deer, and Diana, the prohibited vision, surrounded by her nymphs and furtively observed by Loaysa. More interestingly, the maids’ praise mirrors the fragmented descriptions of courtly poetry, humorously distorted through the collocation of conventional images and similes from Petrarchan poetry (i.e., eyes as green as emeralds or white teeth) side by side with rather ordinary images such as “piñones mondados” or unusual body parts (“copete” and “pies”), thus creating a rhetorical dissonance. Moreover, considering the common definitions of the term “anatomy” as “perfect division” in Renaissance anatomy manuals,⁷ the comments on different parts of Loaysa’s body also constitute a symbolic dissection by which the integrity of his body is divided into distinctive fragments that are admired separately. This powerful image conflates both Actaeon and Orpheus, mythological characters who are associated with clandestine gazing upon a prohibited woman and who both died dismembered—one by his hounds, the other by the women whom Orpheus had rejected due to the pain caused by his loss of Eurydice.

In both discursive contexts (Petrarchan poetry and anatomy), Loaysa is feminized since he takes on a passive role through his equation to a beautiful lady—the object of a masculine gaze—or to a corpse that is manipulated by a male hand (that of the anatomist). Additionally, on both occasions, Loaysa offers his body as a spectacle, an act linked to gender deviancy in Roman culture that, following Bartsch again, invited “not only metaphorical but also physical invasion of the body” (Bartsch 2006, p. 155) or a “breaching of the citizen’s body, whether by the eyes or by the phallus” (Bartsch 2006, p. 154). This conception of the gaze encouraged analogies between gladiators, actors, slaves, and prostitutes—members of the lowest rank in the Roman social hierarchy, labeled as the *infames* because they let their body be used for pleasure “like a woman” (Bartsch 2006, p. 153). In “El celoso extremeño”, Loaysa, defined by the narrator in a rather deprecating tone through the term *virote*, is characterized primarily by his acting skills: first disguised as a maimed beggar at the house’s door, later pretending to be a skilled musician and a music teacher, and finally, offering a performance to the maids; consequently, he falls into the Roman social category of the infamous, and, as such, he is feminized by the exposition of his body to public gaze.

3. The Ear-Eye Metaphor

Considering the weight of mythological references in the text and their thematic homogeneity around sound and image perception, orifices in the house (the entry door, the turning box, and the cat door) can be interpreted also as eyes or ears. In Bakhtinian terms, these orifices “are open to the outside world, that is, the parts through which the world enters the body or emerges from it, or through which the body itself goes out to meet the world” (Mikhail Bakhtin 1984, p. 26). These opened orifices, as opposed to the closing

mechanical devices used by Carrizales (doors, locks, and keys), make conversation and sight possible, allowing communication between the interior and the exterior, thus putting in contact two spaces that Carrizales strives to maintain separately.

In “El celoso extremeño”, the entry door and the turning box function as supplements or metonymies of the ear and the eye on several occasions: Loaysa, “llegándose al quicio de la puerta, con voz baja”, requests a glass of water from Luis, who then informs him of Carrizales’s zealous vigilance (Cervantes 2020, p. 108); later on, Loaysa’s friends speak to him and pass him the ointment through the hole opened in the doorframe (Cervantes 2020, p. 122); Marialonso communicates with Leonora through the cat door “[poniendo] la boca en el oído de su señora” (Cervantes 2020, p. 109); on their first encounter, the maids listen to Loaysa’s songs through the turning box and ask Luis to think of a way through which they can also see the musician, to which the eunuch proposes to have a hole opened in the turning box. It is worth noting that hearing and sight occur as simultaneous bodily experiences from this moment on: the maids conclude that first encounter with the promise to bring their mistress “para que le viese y oyese” (Cervantes 2020, p. 119).

Through this perforation, women transform the turning box into an ear-eye, organs of perception that were strongly associated with bodily penetration, considering classical cultural notions and scientific analogies proposed between image and sound perception that were developing around the time when Cervantes was writing the *Novelas ejemplares*. According to Olivier Darrigol, even if not used as heuristic devices to explain the workings of one form of perception through the other, Greek authors had explicitly discussed analogies between visual and auditory perception since these pertained to a common conceptual framework that conceived both as a form of physical contact between material entities (visual fire, *pneuma*, air, etc.) (Darrigol 2010, p. 134). Plato, for example, explained contrast and brightness through the different sizes and velocities of the particles of the fire emanating from bodies and meeting the visual rays (or “fire”) emanating from the eyes, later named *pneuma* by the Stoics (a combination of air and fire). Similarly, and following Archytas’s atomist model termed the “missile theory”, Plato defined sound as an effect of the collision of two bodies (two portions of air), which caused a rush of air that entered through the ear and was transmitted to the soul, therefore, implying the materiality of the air (Darrigol 2010, pp. 124–25). On the other hand, Aristotle rejected the “extromission theory” described by Plato, by which the eye projected fire particles outwards that reached out to the object gazed,⁸ but in *De Anima*, he establishes clear analogies between echoes, described as a ball rebounding on walls, and light reflection, and later on between the “tympanic membrane” and the “membrane covering the pupil” (Aristotle 1907, II.8, pp. 83–84).

It was Alhazen’s invention of light as an entity traveling from visible objects to the eye in the “intromission theory” that led to the analogy between light and sound, later developed in the Renaissance and Baroque, with the rise of polyphonic music and the mechanical thinking that prompted inquiries into the vibrational nature of sound, in parallel with the development of optics and new conceptions of the working of the eye.⁹ Elaborating on Galen’s anatomical descriptions of the ear, the Dutch physician Volcher Coiter, in his *De auditus instrumento* (1573), for example, portrayed the mode of operation of the ear through analogies with the eye in focusing visual images (Crombie 2003, p. 298).

In the first half of the 17th century, Darrigol stated that neo-atomist theories proposed that light and sound were composed of streams of particles that reached the soul or the intellect through the eyes and ears (Darrigol 2010, p. 120). While some authors (such as René Descartes) defended the dissemblance between sound and light, others (such as Marin Mersenne, Athanasius Kircher, Thomas Hobbes, Robert Hooke, Gaston Pardies, and Christian Huygens) established explicit analogies between light and sound in more or less productive ways (Darrigol 2010, pp. 117–20).

In addition to these philosophical–scientific theories, medical (and pseudo-medical) discourse on “aojamiento” or “fascinación”, stemming from Platonic “extromission”, assumes the capability of the eye to harm. In his work, *Tractatus de fascinatione* (c. 1499), Diego Álvarez Chanca defined *oculus fascinatio* as the eye’s malevolent power to influence others,

not through physical contact or moral or intellectual persuasion, but as a form of contagion through effluvia emanating from the infecting agent's eyes, penetrating the infected via the eyes, and ultimately causing a morbid alteration of the humoral balance (Juan A. Paniagua Arellano 1977, pp. 68–69). Also, Enrique de Villena, in his *Tratado de aojamiento* (1425), describes it as a venomous imprint of the “espíritu visivo” through infected air (Lidia Beatriz Ciapparelli 2005).

We can conclude that, in general terms, the ear and the eye were viewed as analogous orifices of the exit and/or entry of toxic emanations, tools of voluntary or involuntary aggression, and vulnerable to the penetration of external stimuli with varying degrees of materiality.

4. The Mechanical Eye

Additionally, the eye was starting to be interpreted in mechanical terms through experimentation with the *camera obscura* at the beginning of the 17th century. Following the publication of Johannes Descartes' *Ad Vitellionem Paralipomena* (1604), “the optical camera obscura became the model of the eye” that “facilitated a new understanding and further study of how vision works” (Wolfgang Lefèvre 2007, p. 8). In use since classical antiquity as a device for observing solar eclipses, the *camera obscura* was improved in the Renaissance through the addition of lenses and mirrors and ultimately became a sophisticated optical gadget used for entertainment, surveying and mapping, astronomical observation, and drawing (Lefèvre 2007, p. 7).

It seems feasible that Cervantes might have been acquainted with the *camera obscura*. In fact, Lynn Vidler offers an inspiring interpretation of the technological spectacle referenced in *El retablo de las maravillas*, convincingly demonstrating that Giambattista Della Porta's projections through a *camera obscura*, rather than the puppet show or the “teatrigo mecánico” proposed by John Varey (2005), could have served as an inspiration for Cervantes's *entremés* (Vidler 2021, pp. 166–68). Vidler justifies this thesis by establishing the likely coincidence of both Cervantes and Della Porta in Naples between 1569 and 1575 when the Italian scientist published the extended version of his *Magia Naturalis* and was holding private exhibitions of optical illusions via a *camera obscura* that he had improved with lenses (Vidler 2021, pp. 166–67). Specific language employed to characterize the *retablo* as a new form of “play on light” connected to astronomical phenomena (Vidler 2021, p. 174), as well as descriptions of the positions of convenors, spectators, and props provided by the narrator seem to point to the *camera obscura* as the gadget that Cervantes had in mind when designing this *retablo de las maravillas*, according to Vidler.

A similar explanation of the turning box can be derived from “El celoso extremeño”, where we also find elements that evoke the basic workings and functions of a *camera obscura*. As with his reprisals of myth, these elements are reinterpreted and rearranged in a flexible way in Cervantes's *novella*: for example, in a *camera obscura*, spectators do not look through the hole as the women do in “El celoso extremeño” but rather see inverted images of the exterior projected on the wall of a dark room when light enters through a pinhole on the opposite wall. Despite this difference, there are interesting analogies at a more subtle level between the turning box and the *camera obscura*. First and most obvious, an orifice allows the infiltration of an image of the exterior into a darkened space, causing wonder in the spectators to the point that the women believe that they are contemplating an angel (Cervantes 2020, p. 120), thus equating their visual experience to that of the marvels produced in a *lusus scientiae* spectacle.¹⁰ Second, image inversion is here codified through important role and gender reversals in the myths: on the one hand, the gender reversal operated on the Diana–Actaeon myth that I have already noted above by which females take on the masculine role of observer and the *virote* becomes the feminized object of their gaze—what the maids see is an “inverted” version of Loaysa. On the other hand, women take the role of Argus, and Carrizales becomes the passive object of vigilance, thus becoming Io. For example, the night when Loaysa is admitted into the house, Carrizales is referred to as Leonora's “velado”: “que [Leonora] estaba acostada con su velado” (Cervantes 2020, p.

123), “Dijo que fuese a decirlo luego y volviese a ver lo que el ungüento obraba, porque luego luego le pensaba untar a su velado” (Cervantes 2020, p. 124), and “le miraba, y le iba pareciendo de mejor talle que su velado” (Cervantes 2020, p. 130). These references to Carrizales as “velado” are deeply ironic if we consider that Loaysa, his sexual competitor, is simultaneously being admired (and feminized) while illuminated by a “vela”, thus establishing a parallelism between the characters through this linguistic choice. In addition, the narrator wittily plays with the ambiguities of the term “vela”, defined in Sebastián de Covarrubias’s *Tesoro de la lengua castellana* as: “La candela que arde, quasi vegela o vegelando, porque nos da luz de noche para velar y no dormirnos” and “[C]entinela que está despierta y velando las horas que le caben a la noche. De allí se dixo velar, por estar despierto, y con cuydado” (Covarrubias 1611, fol. II.66v). Parodically, the women who had been watched by Argus–Carrizales are transformed into the watchful guards of a feminized Carrizales. They even use similar control strategies, appointing Guiomar as an extension of their eyes in the same way Luis was acting as a supplement to Carrizales’s sight before.

In fact, the candle is a third element that evokes the workings of a *camera obscura*. In his *Magia Naturalis*, Della Porta explains the method by which “images in the air” can be made to appear with a convex lens or a crystal ball, with the aid of a candle, in a *camera obscura*: “[. . .] If you will by night give light afar off with a lenticular crystal, set a candle a little behind the point of burning, so it will cast parallels a very great way to the opposite part [. . .]” (Della Porta 1658, Book 17, Chapter X, p. 368). Similarly, in “El celoso extremeño”, Luis uses a candle in order to illuminate Loaysa’s body for the women who are looking through the hole: “y porque le pudiesen ver mejor, andaba el negro paseándole el cuerpo de arriba abajo con el torzal de cera encendido” (Cervantes 2020, p. 130), and the next day, when Loaysa gains access to the house and is getting ready to play in front of the women, Marialonso again uses a candle to “mirar de arriba abajo al bueno del músico” (Cervantes 2020, p. 115). The candle, then, acts as an artificial source of light necessary at night to reveal the entertaining visual illusion.

Moreover, in “El celoso extremeño”, this optical technology serves an astronomical purpose: some of the conducting mythological allusions are also explicitly astronomical since they refer to four of the seven planets known in Cervantes’s age—Venus, Mars, Mercury, and Jupiter. The Moon is represented through Diana, the goddess of the Moon, a myth I have defended in this study as a significant reference to understand gender dynamics elaborated through the economy of the gaze in Cervantes’s text. Additionally, the Sun is indirectly referred to through Orpheus since he is the son of Calliope and Apollo (god of the sun), according to Juan Pérez de Moya’s influential work, *Philosophía secreta* (Pérez de Moya 1996, p. 815). Further connections with astronomical observation can be established via Orpheus, since not only was he the first one to write on astrology (Pérez de Moya 1996, p. 807) but also his lyre was turned into a constellation (Pérez de Moya 1996, p. 809).¹¹

However, the richest reference in terms of astronomical meaning is, again, that of Argus, with whom Carrizales is explicitly identified in the text. The Ovidian account of the myth in the *Metamorphoses* explicitly compares Argus’s eyes to the starry sky: his eyes are “one hundred lights” around his head (“centum luminibus cinctum caput Argus habebat” (Ovid 1977, I. 625)), he is later described as “starry” (“stellatus” (Ovid 1977, I. 664)) and then finally killed by Mercury; his eyes adorn the peacock’s tail as a constellation of gems (“et gemmis caudam stellantibus inplet” (Ovid 1977, I. 723)). This astronomical metaphor was amply elaborated upon by Pérez de Moya in his *Philosophía secreta*, where Argus acts as a representation of the starry sky, his closed eyes being stars concealed by the intensity of the Sun’s light in areas of the Earth illuminated during the day (Pérez de Moya 1996, p. 686).¹² Sánchez de Viana provides a similar astronomical interpretation in his *Anotaciones sobre los quinze libros de las transformaciones de Ovidio*: “Argos es la redondez del cielo, y sus ojos son las celestiales estrellas, y Mercurio es el sol, que con sus claros rayos las encubre, y obscurece, y entonces se dize matar a Argos” (Sánchez de Viana 1589, Book I, fol. 45).

This panoply of potential connections between pivotal mythological allusions in Cervantes’s text and astronomy, optics, and acoustics beckons a parodic micro- macrocosmic

reading of Carrizales and Leonora's mundane story as enacting the conflict between the two notions of Nature described by Dunn as the foundational antithesis of the *Novelas ejemplares*. On the one hand, Nature is the material or physical world marked by the falls of Satan and Adam, tending to dissolution and chaos and constantly threatened by low corporeal instincts and passions opposed to the higher impulses of the spirit and reason. On the other hand, Nature is a divine order, visible in the movements of the heavenly bodies and organizational hierarchies (Dunn 1973, p. 92). Literary criticism has almost exclusively focused on the first theme, highlighting Carrizales's mediocrity, his usurpation of the role of God, and his subjection to the fatal causality characteristic of those who do not understand the true power of instinct and passions.¹³ However, beyond mythology, little has been said on how the second notion of "Nature as a divine order" is represented or evoked in the text to reveal, once again, the ludicrous disparities (rephrasing Gómez Íñiguez) between the rules that govern the microcosmic reality created by the pretended god Carrizales, versus those governing the macrocosm created by God. And here, science becomes a comic subtext of "El celoso extremeño" if we consider Cervantes's cultural context, that of the Scientific Revolution, and contemporary scientific attempts to disentangle the rules that govern this macrocosmic supreme design.

Humor in "El celoso extremeño" relies primarily on the blunt dissimilarities between Carrizales's simple physical universe and the macrocosmic complexities represented by mythological and scientific subtexts in a series of farcical analogies: old Carrizales as both Argus and Pluto; Loaysa as Mercury, Orpheus, and Actaeon; Leonora as Io, Eurydice, and Diana; the turning box's hole as a *camera obscura*; pedestrian people as planets and mythological figures; cuckoldry as an eclipse, etc. The abyss between one term and the other in this system of analogies, between what characters, things, and actions truly are and their extravagantly elevated virtual projections, is the main source of humor in "El celoso extremeño". This also explains the enormous gap that we see in *Don Quixote* between what Alonso Quijano truly is (an old, impoverished *hidalgo* ridiculously dressed) and the virtual image of what he aspires to become and perceives of himself (a shiny, chivalric hero).

In this sense, the *camera obscura*, as a theater of marvels, becomes a compelling metaphor in the text since, in Cervantes's time, this device brought up preoccupations concerning the ways in which images are produced and to what intention, as well as the ways in which human eyes perceive reality. As Lefèvre explains, the sophisticated optical device created by Della Porta and its earliest employment for spectacles and illusional effects "crystallized thinking on what was virtual and what was real" (Lefèvre 2007, p. 9), with "virtual" being understood as optical illusions caused artificially and falling outside the ordinary course of nature (i.e., a projected image into a *camera obscura*) and "natural" as optical curiosities happening in nature (i.e., images reflected on surfaces). These very same preoccupations materialized in scientific inquiries such as Kepler's distinction between naturally occurring *imago* and artificially projected *pictura* in his *Paralipomena*.¹⁴

In "El celoso extremeño", these same concerns are very clearly developed through many mythological allusions identified by the critics: Argus, Orpheus, Narcissus, Pygmalion, Actaeon, and Vulcan are intimately connected to visual perception and deception. As Hidalgo effectively demonstrates in his exploration of the Pygmalion and Narcissus myths, the Cervantine *novella* displays awareness of a problem of vision: these two myths particularly revolve around the artistic idea of *mimesis* and the dangers of confusing realistic artistic creations with reality itself (Hidalgo 2012, p. 518); thus, these characters act as warnings of the fallibility of sight, a sense that accepts, without proper scrutiny, perceived images from the sensible world (Hidalgo 2012, pp. 505–6). Similarly, Carrizales (figured as Pygmalion, Narcissus, and Vulcan) ends up showing his lack of interpretive skills when he sees Leonora sleeping in the arms of Loaysa in the 1613 printed edition of the text (Hidalgo 2012, p. 521). Distinguishing between real and illusory becomes a problem in the text, not only for the characters but also for the readers, who accompany Loaysa into Carrizales's Hades, the realm of *eidola*—defined in Platonic philosophy as phantasmagorias, deceptive

images belonging to the world of shadows that concealed the true nature of things and prevented men from contemplating the intelligible light and, thus, from reaching the world of Ideas (Corrias 2018, p. 183). Ambiguities in the text prevent a clear understanding of what truly happens at the end, and the reader is left with a vague and diffuse image of the events that lead to Carrizales's death, Leonora's self-inflicted casting out, and Loaysa's fate.

The *camera obscura* also provided a model to better fathom visual perception, now framed within the "intromission theory" (rather than the Platonic "extromission"), therefore understanding the eye in mechanical terms, as an organ similar to a pinhole camera, penetrated by light, rather than as emitting rays. This is precisely the approach to perception that Cervantes represents in "El celoso extremeño", where Loaysa makes his way into the darkened space through the vulnerable orifices of this house-body. The *virote's* masculinity is "penetrative", and the novel narrates his phallic/acoustic/visual infiltration into the vagina/ear/eye turning box, as I have already established. More importantly, he is also associated with light through the Argus–Mercury myth: according to Sánchez de Viana, "Mercurio es el sol" that conceals the light of the stars (i.e., Argus's eyes) (Sánchez de Viana 1589, Book I, 45), a comparison also developed by Pérez de Moya. Furthermore, Loaysa is also illuminated by the artificial light of a candle in two key scenes. The *novella*, then, can be interpreted as an allegory of intromissive visual perception, with Loaysa representing light and the turning box standing for the eye, rendered as a *camera obscura*.

5. Conclusions

Schmelzer suggests that, in episodes such as those of the flying horse Clavileño and of the bewitched ship in *Don Quixote*, Cervantes contests Renaissance epistemological optimism based on a blind faith in human intellect and naive beliefs in the possibility of a total and true comprehension of nature (Schmelzer 2016, pp. 151–54). He observes that "el engaño caballeresco va acompañado por el engaño científico" (Schmelzer 2016, p. 153), and the protagonist embodies the humanist ideal of the illustrated knight who has been deceived by both chivalric literature and scientific certainties. This skeptical attitude towards different modes of seeing or interpreting the world also permeates "El celoso extremeño", where Carrizales seems to embody an Aristotelian approach to the senses: the old man is, at the same time, confident of his own eyes as tools of vigilance and control, and wary of external sensual stimuli influencing his wife, thus showing awareness of the fundamental function of sensory perception in the acquisition of knowledge. In parallel, he displays a "mechanicist" attitude that makes him overconfident in basic mechanical gadgets that prove themselves insufficient against Loaysa's artfulness. Forcione refers to Carrizales's house as a "mechanical world" (Forcione 1982, p. 71) and the "mechanistic world of the repressor" (Forcione 1982, p. 85), an idea that Gómez Iñíguez develops, pointing to Carrizales's naive confidence in keys, locks, and walls, which she summarizes as "remedios únicamente 'mecánicos'" (Gómez Iñíguez 1991, p. 635). The maids and Luis, encouraged by the resourceful Loaysa, oppose Carrizales's outmoded mechanical means with the introduction of new technologies, even if only in an inaccurate way and with rather superficial intentions (entertainment and deceit).

The inconclusive denouement of the story suggests a tie in this competition. On the one hand, Carrizales's revelation of truth or "desengaño" when he sees his wife in the arms of Loaysa actually is a visual deceit or "engaño". On the other hand, Loaysa's impotence to achieve his sexual consummation with Leonora ultimately attests to the fruitlessness of his innovative methods of infiltration. Surprisingly, it is Leonora's adherence to conservative moral values (chastity and virtue) that ultimately impedes Loaysa's success, even though this is never acknowledged by her old husband. Surprisingly, she chooses to end her days as Christ's wife at a convent, thus taking on an analogous role and remaining in a space of bodily nullification similar to her husband's house, while Loaysa imitates his contender Carrizales by sailing to the Indies. Both of them become repeated images or reflections of others or of what they once were.

It is not a coincidence that the narrator closes the novel by referring to the exemplarity of the story as a reflecting surface, an “espejo” of the little trust that must be put in keys, turning boxes, and walls against the will and treacherous housekeepers’ appeals “al oído” to which he adds a comment on his own disappointment with the inconclusive ending and his inability to understand why Leonora did not explain what truly happened (Cervantes 2020, p. 142). In the final lines, then, the narrator merges again visual and auditory perception and ties them to doubt, ambiguity, and the impossibility of revealing a satisfying unequivocal truth in a final Baroque twist that exposes a pessimistic attitude towards any attempt to disentangle reality and to dispel uncertainty in a world obfuscated by deceiving auditory stimuli, optical illusions, and reflections.

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Notes

- ¹ Other scholars who have also pointed out Cervantes’s engagement with science are Julia Domínguez (2009), who situates the Clavileño episode in *Don Quijote* in the context of the Spanish Scientific Revolution, that is, in recent decades of Phillip II’s reign, a flourishing period for astronomy, geography, mathematics, cartography, and cosmography as applied sciences for navigation to and exploration of the transatlantic colonies; Gasta (2011) revisits these scenes, defending the idea that Cervantes refers to relativity theories already suggested in Copernicus’s *De revolutionibus* and Galileo’s *Sidereus Nuncius*; Rosa María Stoops (2019) proposes looking at *El licenciado vidriera* as an allegory of alchemical transformation; Pérez de León (2023) contextualizes Cervantes’s skepticism within the anti-superstitious controversies of his time.
- ² Among the scholars who have illuminated this topic in Cervantes’s work: Rudolph Schevill (1913), John R. McCaw (2007), and more recently, Frederick De Armas (2010) in a complete edited volume containing fundamental studies on the topic.
- ³ Not by coincidence Carrizales’s home is in the city of Seville, a symbol of the extension and power of the Spanish Empire as a strategic administrative and trading centre with respect to the American colonies.
- ⁴ The mouth could also be added to this list, since the turning box is also the orifice through which food enters the house-body: “bajó Carrizales y abrió la puerta de en medio, y también la de la calle, y estuvo esperando al despensero, el cual vino de allí a un poco, y, dando por el torno la comida se volvió a ir” (Cervantes 2020, p. 115). This orifice falls out of the thematic scope of the present essay and will not be mentioned in my analysis.
- ⁵ For an account of the sexual nuances of locks and keys, see Mercedes Maroto Camino’s study of *El perro del hortelano* (Maroto Camino 2003).
- ⁶ Interestingly, in his *Anotaciones sobre los quinze libros de las transformaciones de Ovidio*, Pedro Sánchez de Viana explains Mercury in astrological terms as a dual generic symbol: “Landino interpreta la fábula de Mercurio de otra manera. Diciendo que Mercurio es Planeta templado, y tiene dos casas en el Zodíaco, que son Gémini y Virgo, es nocturno, a veces masculino, y otras femenino, conviértese fácilmente en la naturaleza del Planeta con quien se junta” (Sánchez de Viana 1589, 63–63v).
- ⁷ See, as an example, Bernardino Montaña de Monserrate’s “Prohemio” in *Libro de la anatomía del hombre* (Montaña de Monserrate 1998, Fol. 2v).
- ⁸ Aristotle’s explanation of sound propagation is known as “pestle theory”, considered a variation of Archytas and Plato’s “missile theory”. The difference between these two theories lies in the conceived velocity of propagation of sound (Darrigol 2010, p. 127).
- ⁹ Avicenna in his *Canon*, as Charles Burnett summarizes, explained the inner ear as a hollow cavity with a reservoir of stationary air that was disturbed by the air through which sound travelled, and described the fine hairs into the inner ear as sensitive tips of the auditory nerve, like the crystalline tunic of the eye (Burnett 2004, p. 77). For Albertus Magnus as for Roger Bacon, sound is conveyed by a *species* or “an immaterial entity that originates in the sounding body and carries with it all the qualities of the sounding body” (Mancosu 2008, p. 605; Burnett 2004, p. 78), thus echoing the fifth-century atomists description of *eidōla* as “effluences” given off by solid bodies and impressing the visual sense organs with representations of those bodies (Ana Corrias 2018, p. 180).
- ¹⁰ Paula Findlen illuminates the early modern distinction between *lusus naturae*, or “jokes of nature”, referring to natural marvels and monstrosities; and *lusus scientiae*, or “jokes of knowledge”, or marvels produced through ludic experimentation, thus evidencing “man’s ability to match nature’s complexity with his own artifice” (Findlen 1990, p. 293).

- 11 The planets Saturn and Earth can also be considered as an allusion through an unexplored mythological connection between Carrizales and Saturn/Cronus, the god of time, generation, abundance, and wealth. Cronus was the leader and youngest of the first generation of Titans, divine descendants of Gaia (Earth) and Uranus (Father Sky). According to Hesiod's *Theogony*, Cronus overthrew his father Uranus (whom he also castrated), imprisoned the one-eyed Cyclops and the hundred-armed Hecatonchires in Tartarus and set the monster Campe as its guard. Cronus was later castrated and overthrown by his son Zeus/Jupiter (Hesiod 1966, pp. 18–49, 290–92). Beyond the common themes of seclusion and guarding of a prisoner, the mythological connection between Carrizales and Cronus seems appropriate in light of other studies that explore the father-son competition between Loaysa and Carrizales: Maurice Molho interprets the relationship between Loaysa and Carrizales in psychological terms as an enactment of Oedipal supplantation of the Father (Molho 1990, p. 781); Edwin Williamson describes Loaysa's intention to copy the master key as an attempt of appropriation of the older man's authority or castration (Williamson 1990, p. 801); Stephen Boyd has also illustrated the father-son dynamics represented in *El celoso extremeño* through the biblical myth of the Prodigal Son and the figurative mirroring of Carrizales and Loaysa (Boyd 2007, pp. 83–86).
- 12 See: "Dezir que los ojos de Argos unos dormían, y otros velaban: esto es porque siempre la mitad del Cielo, se vee alumbrado del Sol, y en las Estrellas que con claridad del Sol no muestran su resplandor como velas pequeñas en presencia de hachas" (Pérez de Moya 1996, p. 686).
- 13 Dunn offered a lucid analysis of such questions (Dunn 1973), and later, Alban K. Forcione, who pointed out the connections between Loaysa and Tirso's Don Juan through Satan (Forcione 1982, p. 48), interpreting the house as a "false paradise of confinement" (Forcione 1982, p. 35). Similarly, Boyd states that the house is an "artificial Eden" (Boyd 2007, p. 75). Steven Wagschal's study (Wagschal 2006) can also be included in this group, since he calls attention to the negative characterization of Carrizales as a Jewish converso marked by a stereotypical jealousy, who suffers a conversion at the end, after perversely emulating Jehovah's placement of Adam in the Garden of Eden before the Fall with Leonora and her maids. Lucidly, Wagschal states: "The jealous Extremaduran behaves as a self-fashioned god, attempting to gain complete control over his worshippers, displaying a jealousy that goes beyond the scope of what can be considered amorous and is more like Jehovah's ontological jealousy" (Wagschal 2006, p. 110).
- 14 For a more detailed account of this topic, see Sven Dupré (2008).

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