“Voice and very forme becometh womanish”: Contemporary medical views of the Castrati

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During the 17th and 18th centuries, surgeons and parents attempted a bizarre endocrinological experiment: the castration of pubescent boys for the preservation of their treble voices. The Baroque passion for highly ornamented, technically difficult, soprano-range music, combined with social restrictions to the training and performance of female singers, created unique opportunities for the castrati, or as they were more euphemistically called, the musici.1 Church choirs offered a reliable income and noble patrons promised prestige and influence.1,2 At the same time, Italian opera seria was becoming an internationally popular entertainment, opening up fantastic possibilities of wealth and renown for its castrati stars.1 Accordingly, ambitious families with slender means and abundant offspring chose to castrate younger sons with promising voices – openly through the 17th century, and with increasing shame and secrecy into the 19th century.3

From the perspective of modern endocrinology, the effects of removing both testes before puberty are significant. Without testes, a castrato would not pass through puberty, resulting in a pubescent penis, sexual dysfunction, and sterility. More systemically, he would have no male-pattern body or facial hair and a “eunuchoid” body habitus (long limbs relative to torso, as the long bone epiphyses would not fuse). A lifetime of low testosterone would bring dry skin (arising from low sebaceous gland oil secretion), fine wrinkles, osteoporosis, a higher than expected mortality, and amputation of any part except the carotid arteries, to render the patient “stupid and insensible.”

Predictably, many noted an effect on voice; the British writers often devoted space to describing its effects. Castration was not passed as a cure for hernias, but observers noted an anesthetic effect. For example, “squealing” in “Eunuchism Display’d,” and “soft and shirle” in a mid-17th century translation of the “workes” of the French surgeon Ambroise Paré (1510-1590).11 Other writers described the castrato voice in less flattering terms, for example, “squealing” in “Eunuchism Display’d,” and “soft and shirle” in a mid-17th century translation of the “workes” of the French surgeon Ambroise Paré (1510-1590).11

Medical writers also noted a lack of beards among castrati, and there was general consensus about their infertility. The sexuality and sexual function of castrated men, however, was a much more controversial topic. For
example, one contemporary British physician implies castration removes both ability and desire for sex, while another claims quite the opposite:

Eunuchs love Women passionately, and being of a weaker Mind after than before Gelding, are the more susceptible of this Passion... It cannot be express’d to what Point they will push their irregular Desires when their Fancy is once inflam’d.

This confusion mirrors castrati’s reputation in popular culture, which both mocked them as impotent and credited them with a myriad of lovers of both genders.

As implied in the above quotation, contemporary physicians considered castration to profoundly shape mind and behaviour, as well as body. A castrato, according to John Marten, has diminished “Strength, Activity, and Vigour of his body, and acuteness of his Reason and Judgement.”

The author of “Eunuchism Display’d” further claims that castrati have “no Courage or Bravery of Soul, but [are] ever timorous and fearful,” and contemporary medical authors tend to agree.

The Dutch physician Ysbrand van Diemerbroeck (1609-1674) succinctly summarizes the general view by concluding that castration makes one “slower in all the Exercises both of Body and Mind.”

Different authors emphasise different attributes of castrati, but a general outline of 17th and 18th century medical descriptions would include a high voice, beardlessness, infertility, altered sexuality, physical and mental weakness, and cowardice.

Explanations

Medical rationales for this collection of castrati traits are complicated by the somewhat chaotic state of European medicine during the 17th and 18th centuries. The classical tradition, centred around the works of Galen of Pergamum (129-199 CE), had guided academic medicine through the Middle Ages, but new ideas from anatomy, alchemy, and a lesser extent, dryness/moisture ratios: “The female is less perfect than the male for one, principal reason – because she is colder.” Castration removes a man’s heat advantage, bringing him down the spectrum of gender towards “imperfect” women: “the whole body is made feminine by excision of the testicles.”

Yet the castrated man does not become a woman; he is “not female or male but some third kind.”

The ideas of loss of heat and a shift towards a feminine body inform the work of many 17th and 18th century medical authors. The British physician John Bulwer (1606-1656) directly cites Galen’s explanations, especially for the high voice of castrati. He also alludes to a “certain aire” – perhaps similar to Galen’s “strength” or “power” – given off by the testes, “by whose mediation virility is reconciled, the body acquires strength and firmenesse, is made more lively; at length, the principall members do more perfectly execute their office.” Loss of the testes is therefore a loss of “well-being.”

It also makes the castrato more like a woman, which is by no means a value-neutral transformation. Bulwer contends that to castrate a man for any reason except an “otherwise incurable disease” is unconscionable: “willingly to degenerate into the Nature of women, suffering themselves to be transformed from the Masculine to the Feminine appearance (a false Copy) is to offer as great an Injury to Nature as the malice of mans refractory wit can be guilty of.”

Ambroise Paré, too, cites Galen’s views on the subject, and elaborates upon the significance of degenerating “into a womanish nature”: “for they remaine without beards, their voice is weake, their courage failes them, and they turne cowards; and seeing they are unfit for all humane actions, their life cannot but be miserable.” Loss of heat brings not only female physical characteristics, but also moral ("they turne cowards") and social ("unfit for all humane actions") dimensions of 17th and 18th century femininity.

John Martin also relies on Galen’s ideas about the testes producing heat, but diverges from Galen and Bulwer about the effect of castration on sexuality. Since he considered semen to be the source of sexual desire, Galen held that castrated men would be essentially asexual. Martin explains his claims about the “irregular Desires” of the castrati by suggesting organs newly described by anatomists could be additional sources of semen: “the kind of aqueous Seed in the prostate or seminal bladders irritates their Privities.” This “aqueous Seed,” combined with castrati’s “weaker” – that is, more female – mind, makes them more susceptible to desire. A belief that emasculation could undermine sexual restraint is in keeping with contemporary ideas about female sexuality in medical writing and in popular imagination. For example, Shakespeare’s King Lear describes his unfilial daughters as sexually voracious, despite an outward show of chastity:

Behold yond simpering dame... That minces virtue, and does shake the head To hear of pleasure’s name; The fitchew, nor the soiled horse, goes to ’t With a more riotous appetite. Down from the waist they are Centaurs, Though women all above. (IV, ii, 132-9)

Like the castrati, women have weak minds and ineffectual “seed” (ovaries were commonly – although not
Diemerbroek is not content to use heat alone as his explanation for the consequences of castration. He employs more complicated reasoning partly drawn from the alchemy-inspired physiology of the radical medical theorist Paracelsus (1493-1541). According to Diemerbroek, the testes exude a "lustful seminal Breathing," which travels through the body, heating the blood and making the "Spirits" (active principles conveyed by nerves from the brain) more "smart and vigorous." Without this breathing, the blood grows cold, and the "sulphury and oily Particles of the Blood" cannot be separated from the "more dry and salter Particles," resulting in more languid Spirits. Furthermore, the blood that would normally have been consumed in producing semen builds up, with the "effeminate" result of "extraordinary Corpulency" and a "more dull" mind.

The British physician Thomas Willis (1621-1675) combines Paracelsian alchemy with ideas about fermentation from contemporary natural philosophy to explain the castrati. The principles of salt, sulphur, and spirits are concentrated and fermented by the testes, as grapes are fermented to make wine; and from this "Seminal Ferment" arises "abundance of heat, great strength, a sounding Voice, and a manly eruption of Beard and Hair." As a result of castration, "men grow womanish," being cold, weak, high-voiced, and without a beard.

As an anatomist, de Graaf focuses on the anatomical basis for the way the testes affect the rest of the body. He suggests the newly-discovered lymph vessels "draw from the testicles, along with the thinner and more watery part of semen, other more noble parts and give a share of these to the heart and other parts of the body." Without these "nobler parts" of semen, a castrated male "changes in such a way as almost to acquire the physical condition of a female." Although these explanations for the effects of castration diverge in the details, a few common elements emerge. They all postulate some mechanism for action at a distance – vital heat, seminal breathing, seminal ferment, noble parts of semen – in order to explain what the authors see as castration's dramatic changes to the body and mind. They also tend to portray these changes as a shift from a male state of being towards (but not to) a female one.

Significance

From this perspective, the prudent-seeming decision of a large, financially-strained family to have a musically-gifted son castrated becomes more radical. It would mean taking a child destined to be a "perfect" (that is, male) representative of what it means to be human – strong, bearded, rational, and brave – and debasing it to a more imperfect (female) creature. How much of academic medical writers' learned opinion would have been familiar to the parents and surgeons intimately involved in the operation is unclear. At the very least, Galen's views about the body had been circulating in Europe since the 12th century – and yet the voice of a castrato was worth "cut[ting] out the strength of the entire body." Quite apart from the philosophical implications, making a son more like a daughter had significant social and economic consequences. Castrati were technically forbidden to enter the priesthood (although exceptions were made), and professions outside music which did not admit women were not welcoming of "womanish" men. Since their transformation into women was incomplete, they could not claim a female social role, such as marriage or joining a convent. Consequentially, castrati had a profound incentive to succeed as singers; an application from a young castrato to a famous conservatorio in Naples makes this point clear: "since he is a eunuch, music... is the only profession to which he wishes to apply himself." This desperation, combined with the extremely rigorous early training it motivated, may have contributed as much as physiology to the voices contemporary audiences considered incomparable.

References

6. See for example Giovanni Battista Morgagni's enormous work on pathological anatomy, De Sedibus et causis morborum per anatomem indagatis, first published in 1761.


