

Edgar Allan Poe, MD: Medical Fiction and the Birth of Modern Medicine

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Despite the most particular and attentive descriptions of dying faces and dead bodies, characters unfortunate enough to die in a story by Edgar Poe will almost certainly be misdiagnosed.

Michael Cisco, *Supernatural Embarrassment* (156)

Edgar Allan Poe's obsession with medical pathology was not merely reserved for his private conversations about spiritualism and transcendentalism with Sarah Helen Whitman (a famous intellectual interested in science, mesmerism and the occult) but permeated many of his essays, poems and stories. That knowledge gathered from mesmerists and pseudoscientists of his time was translated into his short stories as organic decomposition and electrical theories, as well as attempts to satirize, criticize and leave record of his ambitious interest in nineteenth-century medicine and medical practices. David E. E. Sloane explains in his master's thesis *Early Nineteenth-Century Medicine in Poe's Short Stories* that in 1835 and 1836 Poe was manifesting "the extent of his knowledge" of medical interests, practices and sources through his reviews of two medical works for the *Southern Literary Messenger* (2).

Not only Edgar Allan Poe, but also some other nineteenth-century writers were obsessed with science: America was undergoing the explosion of a scientific era where most of the scientific theories as known today were being discovered. Poe's work, in particular, is a rich reflection of this, and his evident fascination with science can be perceived in most of his stories, starting with one of his early poems *To Science* (published in 1829) where Poe shows his concern towards the incursion of modern and social sciences. America, at the time, was under the influence of sensationalism due to pseudoscience and the pseudoscientific theories, which bridged the border of hoax and truth. Poe and his creations were influenced significantly by the growing popularity of scientific sensationalism, the progress of physics in the American prewar period, professional medical publications made accessible to the public, the publication of treaties such as *Klecksographien* by Justinus Kerner (which galvanized the work of well-known Hermann Rorschach), and magazines, English periodicals of the 1830s and

theatre. This was manifested in Poe's stories: dyspnea, anxiety, paroxysm, coma, suspended animation, use of prosthetics, bio-augmentation, bio-modification and epilepsia can be found in "Loss of Breath;" monomania, catatonia, catalepsia, narcolepsia and inbreeding in "Eleonora" and "The Fall of the House of Usher;" cataplexy in "Berenice;" miasmatic theories, Spanish influenza and yellow fever in "The Masque of the Red Death;" hallucinogens, hypnotics, sedatives and ancient anesthesia in "The Man that was Used Up;" proboscis and cyclopia in "Bon-Bon," analgesia in "The Business Man" and tuberculosis in "Ligeia."

While some may accuse Poe of being sensationalist, or using medicine in his stories with sensationalistic purposes, Poe explores a new medical science capable of diffusing the barriers of human potential. Using the texts mentioned above, this article will delve into the use of medicine in Poe's work, putting a name to the phenomena behind each story. The narrator of the story "The Business Man" explains that "it's an old saying, and a true one, however, that money is nothing in comparison with health" (417). In a country in which even 200 years after Poe's birth health insurance and healthcare remains a problem, it seems appropriate to investigate how these medical concerns were expressed in a time when America was gaining autonomy and working independently, detached from European founders and settlers.

Noting Poe's concern for health in his personal and creative life, and medicine being present throughout Poe's work in one way or another, this article will delve deeper into the medical aspect of scientific narrations in Edgar Allan Poe's writing. It will demonstrate Poe's medical literacy and his use of that awareness to create brilliant pieces of work. The article will display how Poe, through his medical research and interests, introduced practices of medicine and science into his works which present-day readers may receive as normal and even familiar but which, during his time, created an atmosphere of terror so real for his readers and contemporaries that hoaxes were taken at face value. His unabridged imagination was capable of creating realities that could be achieved two centuries later.

Fear of Medicine: Fear of the Unknown

In accordance with the nineteenth-century fashion, experiments with death and explorations of limits of life were very attractive. Through his science fiction Poe imagines a world where immortality is possible, and in works such as "The Oblong Box," the post-human subject, the virtual body and the body of the future remain scientific matters whereas the matter in itself transcends science. But perhaps, more interestingly, in "Loss of Breath," Poe's obsession with dismembered bodies and the separation and latter union of different parts of the body can be observed, likely due to the nascent use of prosthetics at that time. An organism capable of living without breathing, which is one of the multiple examples of physical impossibility attractive to Poe and his contemporaries, also fascinated Poe and he explored it in this story. "Berenice," "Ligeia" and "Morella" offer cases where the body decomposes before the narrator's eyes and then resuscitates.

The analysis of general science and science fiction in Edgar Allan Poe's work has been studied in manifold essays, but not as many have narrowed this study to medical sciences. Poe's contribution to medicine and history is significant – not only because his stories made nineteenth century readers question the practices inside and outside of the practitioner's

room and the limits of science and pseudoscience, but also because Poe left a trace of these practices in a vast percentage of his total corpus of work. His criticism and analysis yielded more results than that of any other author writing about science and medicine in fiction at that time. Poe's works demand our attention because of the implicit psychology in them. For a better understanding of Poe's intention, the reality of the United States in the first half of the nineteenth century must be taken into account. It was a world that had no reliable pain killer until 1846 as Taylor Stoehr affirms in his book *Hawthorne's Mad Scientists: Pseudoscience and Social Science in Nineteenth-Century Life and Letters* when explaining the anesthetic uses of trance and the excitement mesmerism produced at that time (24). Since Edgar Allan Poe lived in the early nineteenth century, it is important to note how Michael Cisco in his master's dissertation, *Supernatural Embarrassment: The Polemic Between Science and the Supernatural in the Writings of Nathaniel Hawthorne, Edgar Allan Poe and Herman Melville*, explains the conception of death in Poe's time: "[T]he eighteenth century was obsessed with cadavers, and tormented by the fact that the operations of life were still so obscure that even the precise moment of death could not strictly be determined" (155). By referring to Phillippe Ariés, he maintains that "eighteenth centur[y] regarded death principally as an individual experience, one more and more to be understood in terms of rape. The rape of life by death and the rape of the cadaver by the anatomist are parallel" (155).

Ariés clarifies that eighteenth-century contemporaries were not only concerned with the idea of dying and the moral and spiritual idea of an afterlife, but also about how the anatomist would "rape" the cadaver with his surgical instruments. In the same fashion, terror is felt when faced with an anatomist's table carefully prepared with all kinds of instruments to dissect a dead body. This type of fear is fear of medicine, of the unknown, of one's giving of himself freely and without question to a practitioner who might or might not know what he is doing. Poe reflected this fear in "Berenice" where its narrator, in a very professional fashion and almost imitating the speech of a doctor, proceeds to offer a diagnosis to his cousin:

Among the numerous train of maladies superinduced by that fatal and primary one which effected a revolution of so horrible a kind in the moral and physical being of my cousin, may be mentioned as the most distressing and obstinate in its nature, a species of epilepsy not unfrequently terminating in *trance* itself – *trance* very nearly resembling positive dissolution, and from which her manner of recovery was in most instances, startlingly abrupt (643).

Interestingly, the narrator uses the same speech as the doctors did in his time. He doesn't clearly name the disease, but he surmises. He also speculates on his own maladies: "My own disease – for *I have been told* that I should call it by no other appellation" (643, my italics). He does not mention that he has been in a practitioner's consultation, but he surprisingly tells us that he "[has] been told" his disease. This lack of information and this speculative tone make us wonder if the narrator is making this information up or not. Is he rather ashamed of saying that it is in fact a self-diagnosis for fear of being taken for a fool, or for being seen as too pretentious? Poe describes these pretensions best in "The Businessman:" "If you ever perceive a man [...] pretending to be a lawyer, or a blacksmith, or a physician – anything out of the usual way – you may set him down at once as a genius, and then, according to the rule-of-three, he's an ass" (413).

The “genius/ass” Egaeus further describes his situation as follows: “my own disease, then, grew rapidly upon me, and assumed finally a monomaniac character of a novel and extraordinary form. [...] This monomania, [...] a morbid irritability of those properties of the mind in metaphysical science termed the *attentive*” (643). The narrator then explains how he has to struggle with his disease: “[T]hen came the fury of my *monomania*, and I struggled in vain against its strange and irresistible influence” (646). Calling monomania “my infirmity,” “my disease,” “my disorder,” this self-diagnosis becomes more evident when he describes what he felt when he saw Berenice’s teeth for the first time. He starts to describe “a sense of insufferable anxiety” which made him remain for some time “breathless and motionless” (646), a feeling that will not be exclusive to this story but which will be seen also in some other stories such as “Loss of Breath.”

Premature Burials and Tasks of Restoration

Nevertheless, in “Berenice,” the details of Berenice’s disease and the protagonist’s performance as a doctor are more significant than his own disease and self-diagnosis. First, Berenice is buried prematurely. “Berenice was – no more! She had been seized with epilepsy in the early morning” (647). Ultimately, Egaeus is revealed to have violated her grave to spare her from her teeth. Berenice was later to be found by a maid as “a disfigured body enshrouded, yet still breathing, still palpitating, *still alive!*” (648). As Christopher Dibble proposes in his article “The Dead Ringer: Medicine, Poe, and the Fear of Premature Burial,” Berenice is a victim of cataplexy, although “it is suggested that she was prematurely buried, due to her affliction with a type of epilepsy causing her to fall into deep, catatonic states” (3). Coma, or “suspended animation” as Poe would call it in “The Facts in the Case of M. Valdemar,” (956) was the main cause of premature burials. Walter Whiter illustrates in *A Dissertation on the Disorder of Death* that “one third, or perhaps half of those, who die in their beds, are not actually dead, when they are buried” (362). This was written by the Doctor Regent of the Faculty of Medicine in Paris in 1819.

Apparently, Egaeus used “a little box [...] property of the family physician,” inside which “some instruments of dental surgery, intermingled with thirty-two small, white and ivory-looking substances” to commit his robbery (648). It can be assumed, then, that it was relatively easy for Poe and his contemporaries to have access to the tools of the trade. While it is still unknown why Egaeus had such easy access to the implements of dentistry, Poe does not lose his sense of humor and describes his hand as “indented” with the impress of human nails. Monomania, a mental trait which can be identified by an extreme obsession or fixation is present in this tale and also in tales such as “The Black Cat,” “The Tell-Tale Heart,” and of course “The Man of the Crowd.” All these stories have been thoroughly studied with a focus on the obsessive behavior of the narrators.

Medicine, which was unknown to individual in the eighteenth century, turned to be a success in the nineteenth-century. This was thanks to the pseudosciences, which helped the patient attain a clearer understanding of his maladies and made what was happening to him much easier to explain. The attractiveness of the pseudosciences was primarily based on how they connected medicine and patient without the intervention of a professional practitioner. Because, as Stoehr remarks:

Nineteenth-century America displayed a remarkable popular interest in science and technology, even among citizens who had little notion of the actual methods and aims of the laboratory. There simultaneously arose a whole class of what we now call pseudosciences – mesmerism, phrenology, homoeopathy, and the like – which competed successfully with more respectable doctrines for public attention (9).

Further explaining this idea, in her book *Fevered Lives: Tuberculosis in American Culture Since 1870*, Katherine Ott explains that the average physician at work practiced a “rich mixture” of common sense, folklore, popular knowledge, and medical doctrine (6). The lack of consistent medical knowledge by the practitioners, and the inability to pass it to the clients is precisely what made the pseudosciences a success in America during the nineteenth century. In fact, medical practice appealed to the other forms of knowledge that Ott identifies. Poe’s “Ligeia” presents an example of how medical practice turns to be a pseudoscience. Although “Ligeia” is open to a variety of readings, in medical context it is interesting especially due to the character who is self-cultivated in arts and medicine. He clinically examines his wife and attempts to cure her:

There was now a partial glow upon the forehead and upon the cheek and throat; a perceptible warmth pervaded the whole frame; there was even a slight pulsation at the heart. The lady *lived*; and with redoubled ardor I betook myself to the task of restoration. I chafed and bathed the temples and the hands, and used every exertion which experience, and no little medical reading, could suggest. But in vain. Suddenly, the color fled, the pulsation ceased, the lips resumed the expression of the dead, and, in an instant afterward, the whole body took upon itself the icy chilliness, the livid hue, the intense rigidity, the sunken outline, and all the loathsome peculiarities of that which has been, for many days, a tenant of the tomb (664).

Ligeia’s husband tries to cure his second wife, Rowena, since she has obvious signs of consumption. By creating this scenario, Poe shows the “task of restoration” of a sick body at home, which was a common practice in the nineteenth century America. Common sense was one of the tools of the trade back then because, as Poe points out, all that was needed was “experience and no little medical reading.” The excerpt indeed looks taken out from the class notes of a student of medicine at that time. The medical discourse in “Ligeia” starts when Ligeia gets ill and does not cease until the very end of the story.

As Sloane points out, Poe’s medical knowledge belongs clearly to the early stages of the nineteenth-century. This is supported by the medical men who had contact with Poe during his lifetime, and also the medical works he had access to. Rationalism was characteristic of early nineteenth-century medicine, and “accessible to the layman through its dependence on logic rather than the complex analysis of empirical data” (15).

Medicine: A Fictionalized Art?

The lack of information and the widespread use of the pseudosciences favored the belief that one could cure a patient with one’s own power, in a mesmerist style. The medical treatises in the nineteenth-century were accessible to the public. It was not uncommon to use them as a veracious source, and be influenced by them to write works of fiction. This practice

rendered medicine a fictionalized art. As Aspasia Stephanou defends, nineteenth-century medical treatises, medical knowledge and literature not only speculated on the symptoms of consumption and counted on the apparition of countless consumptive women, where the “consumptive bodies” appeared with “diaphanous pale skin and rosy cheeks” but also created a “metaphorical feminine body, a cultural construct controlled by the authority and gaze of the medical practitioner and writer” (40). In the words of Stephanou, “Poe went against the dominant discourses of American transcendentalism and medical discourse on consumption that sought to elevate spirituality and idealize materiality, thus reducing life to mysticism” (50). Consumption, elevated spirituality and the ephemeral presence of materiality, along with changes in shape and form are Poe’s gift to transcendentalism until “Ligeia” reaches its end, where the medical discourse is more than evident and, in Poe’s fashion, the tale takes an unexpected turn.

Edgar Allan Poe’s narrations are full of rich medical descriptions and discourses. “Ligeia” is an attempt to describe consumption to a reader unfamiliar with the symptoms. Nineteenth-century Americans did not know quite well where these diseases came from, how to cure them or how to stop them from spreading. One of the explanations or hypotheses for yellow fever, consumption and malaria, for example, was the miasma theory. As the *Dictionary of Public Health* explains:

[Miasma theory was] a theory that had considerable currency during the 18th and 19th centuries as a way to explain the origin and propagation of some epidemic diseases, particularly cholera. The theory was that the cause was miasma, an ill-defined emanation from rotting organic matter. The theory derived empirical support from the observed distribution of malaria and yellow fever in marshy regions, until it was discovered that these are mosquito-borne diseases. (174)

As Conevery B. Valenčius manifests in her book *The Health of the Country*, the first register of miasma was by a Missouri traveler called Henry Vest Bingham in 1818. He warned his brother that there was an “unhealthy fog,” miasma, which behaved like “smoke or mist, blown with air currents, wafted by winds, and rising from earth, vegetation or water” (115). Miasmas were normally associated with stagnant water that infected the air and the diseased people. Miasmas were also thought to transmit cholera and yellow fever, or so went the prevailing theory until John Snow traced a source of cholera outbreak in 1854, and became the father of epidemiology and physician Robert Koch’s microorganism research. Poe’s most evident contribution to miasmatic theories was his tale “The Masque of the Red Death,” where we encounter the rendition of a disease which Poe describes from the very beginning. The narrator describes how the Red Death, a pestilence that had been so fatal or hideous, had long devastated the country:

Blood was its Avatar and its seal – the redness and the horror of blood. There were sharp pains, and sudden dizziness, and then profuse bleeding at the pores, with dissolution. The scarlet stains upon the body and especially upon the face of the victim, were the pest ban which shut him out from the aid and from the sympathy of his fellow-men. And the whole seizure, progress and termination of the disease, were the incidents of half an hour (269).

The disease ends up propagating and taking the life of Prince Prospero and his guests who were secluded in a gothic abbey. Through the analogy of the Red Death, considered by many as consumption in itself, Poe shows his concern for a disease that spreads quickly amongst his guests, in a high-class party, reserved to a small portion of the population. One possibility is that this could be a disease easily associated with contagion by breathing, in the style of a miasmatic theory, but Hugo Santander advocates for a bigger theory in his article “Poe, the Masque of the Red Death, and Their Correspondence with Modern Society.” Santander contends that “One hundred and sixty years after its publication, “The Masque of the Red Death” resembles the fears of our civilized world. [...] The first lines of Poe’s narration announce the deadly combination of poverty and AIDS in the so-called Third World” (1). Because the Red Death is a fictitious disease and Poe never defined it too precisely, Santander suggests that Poe might be representing consumption, yellow fever or black death, but his description is also valid for Spanish Influenza or even HIV infection, a disease which had its first case reported as early as 1981, described by victims of it as “the worst flu ever” and whose symptoms are fever, swollen glands, sore throat, rash, fatigue, headache and muscular pain. Many people in Poe’s time suffered from diseases analogous to the Red Death.

In the “Tale of Ragged Mountains” allusions to physicians, medicine, doctors and medical practices of the time are used constantly. One of the characters, Dr. Templeton, is introduced to the readers as someone who “in consideration of a liberal annual allowance, had consented to devote his time and medical experience exclusively to the care of the invalid” (680). Medical inaccuracy was so common that it became an object of satire, and Poe provides an example of it: “This creature fastened itself upon a small artery in the right temple. Its close resemblance to the medicinal leech caused the mistake to be overlooked until too late” (686) and also “N. B. – The poisonous sangsue of Charlottesville may always be distinguished from the medicinal leech by its blackness, and especially by its writhing or vermicular motions, which very nearly resemble those of a snake” (686). Antiquated though they may seem, medicinal leeches are still used in present day to help heal skin grafts and reattaching body parts.

The following passage from “Some Words with a Mummy” depicts, again satirically, how detailed doctors were considered to be in their descriptions and characterized by a sort of incomprehensible charlatanry. The narrator explains, “[T]he good little medical man went on to detail, very minutely, the proportions of the fabric to which he referred” (537). Stoehr supports this idea and describes the charlatanry of medical men:

As a medical man, Dr. [David] Reese was interested in exploding the claims of phrenologists who knew no anatomy, of mesmeric somnambulists – “medecins endormez” he called them – who *pretended to detect and cure all manner of diseases*, by looking into the inside of the stomach, bowels, liver, spleen, lungs, brain or any other organ of the body, and describing the disease as well as naming the remedy (26, my italics).

Taking medicine by their own hand, the cause and effect of this “self-made science” was a mistreatment of medicine and science, and thus a failure in medical and scientific practices. This “looking into the inside,” or in other words, vivisection, dissection and anatomical study, at that time were “the special obsessions of the enlightenment, and dissection became, in

Europe, even a sort of fashionable pastime" (151). Also, "a fascination with the minutia of the body and the mechanization of executions" (151) was criticized by Poe not only in "Loss of Breath" but also in "Berenice." Stoehr continues that "Egaeus' interest in Berenice is exclusively anatomical, and finds expression in vivisection and grave robbing" (193). He further explains, "There is no science without a study of bodies, living or dead, and hence: no science without carrion. Science is anti-animism" (151). In the words of Sloane:

Dr. Rush examines the effects of alcohol on the systems extensively, a subject of interest to Poe. In another essay, he suggests the sensations might be translated from one area of the body to another and advocates the extraction of decayed teeth to alleviate seemingly unrelated ailments, an idea followed out in Poe's "Berenice." The doctor deals with consumption and related topics in a number of essays which have their counterparts in Poe's short stories (13).

Clear to many readers of "The Fall of the House of Usher," incest is also present in Edgar Allan Poe's stories and this translates through a lack of health of the characters due to inbreeding and direct lines of descent. In "Eleonora," Poe writes, "She whom I loved in youth [...] was the sole daughter of the only sister of my mother [...] we had always dwelled together [...] we lived all alone, knowing nothing of the world without the valley, -- I, and my cousin, and her mother" (649-50). The narrator also comments on how difficult it was for strangers to find the valley where the three of them lived in isolation, the Valley of the Many-Colored Grass, described as seclusive a place as the house of the Ushers. This seclusion makes us think on how in this story he is likely to be commenting on the difficulties or concerns of that time of, in Poe's own words, direct line of secession.

The Triumph of the Pseudosciences

Poe was both a supporter and a critic of pseudosciences: he was aware that the pseudoscientists would anticipate later developments as he was very interested in the progress of science and medicine. However, he also considered its representatives guilty of charlatany. Thanks to John Elliotson, Chauncey Hare Townshend and Thomas Capern, to name just a few, mesmerism, one of the many developing pseudosciences of the nineteenth-century, reached a great audience and was contemplated as a developing science that obliterated the limits of human capability. Mesmerism was a way of providing an explanation for all the effects technology was undergoing, without leaving it as explanations of something purely magical. Nineteenth-century academics wanted to go beyond the myth. This is why the mesmerism present in the texts such as "Loss of Breath" works: matter is transmuted into spirit, bodies are reanimated with electricity, human beings travel beyond death and the boundaries between life and death are bridged – people are buried alive, the dead are given the properties of the living and people are alive but look dead.

The tale "Loss of Breath" is one of Poe's sharpest satires towards medicine, physicians and doctors of his time. "Poe described 'Loss of Breath' as an intentional satire aimed at 'the extravagancies of Blackwood,'" according to Eric W. Carlson (116). In the opinion of Biykem Bozkurt and Douglas L. Mann, the disease associated with shortness of breath is called dyspnea and can be usually identified because it "may be accompanied by discolored phlegm and/or fever" (2). It could be associated with abnormalities in organ systems in the body: it

may stem from the lungs with infections such as pneumonia, bronchitis or even tuberculosis; or from the heart. Poe again stages a self-diagnoses and an imitation with mockery and humor of the medical speech of a doctor. “There was some alleviation to the first overwhelming paroxysm of my sorrow” (396) – the pedantic speech, self-diagnosis of paroxysm, and excessive poetic language are eloquent enough. The diagnosis continues as below:

I discovered that had I, at that interesting crisis, dropped my voice to a singularly deep guttural, I might still have continued to her the communication of my sentiments; this pitch of voice (the guttural) depending, I find, not upon the current of the breath, but upon a certain spasmodic action of the muscles of the throat (396).

Again, the narrator of the story is attempting to explain how his dyspnea develops and originates in the spasmodic action of the muscles of the throat. Furthermore Poe portrays a young practicing physician, supported by several drunkards travelling in a bandwagon, who leaves the narrator for dead because he “applied a pocket mirror to [his] mouth” (398) and found him without breath. As Dibble emphasizes, lacking the modern technology we have today such as electroencephalograms and electrocardiograms, “nineteenth-century physicians had only their fingers to feel for a pulse and mirrors to check for condensed breath” (2). The narrator is hanged and left for dead a second time, and then buried alive. In his same surreal manner, Poe narrates how the narrator awakes, most likely in a waiting mortuary. “I knocked off [...] the lid of my coffin, and stepped out. [...] I felt my way among the numerous coffins ranged in order around. I lifted them down, one by one, and breaking open their lids, busied myself in *speculations about the mortality within*” (401, my italics). These “speculations” are a guaranteed proof of the mockery mentioned before: one of the patients in the waiting mortuary can understand if the corpses are dead or alive better than the working practitioners and physicians.

Loss of breath, or dyspnea, has been frequently linked to anxiety. Poe was, with all certainty, aware of this, and that is the reason why he insisted on making very evident that he knew all the symptoms of the disease: “In displaying *anxiety* for the breath of which he was at present so willing to get rid [...] it is precisely at that time when men are most *anxious* to throw off the burden of their own calamities” (403, my italics). Mr. Lackobreath started to shake when he was being hanged: with it, we encounter an accurate description of an epileptic crisis. “Met Blab at the corner of the street – wouldn’t give me a chance for a word – couldn’t get in a syllable edgeways – attacked, consequently, with epilepsy” (402). Epilepsy, or rather epilepsia nervosa, was thought to be caused by worm infestation and parasites in the mid eighteenth-century (Snyder 1).

Another character, Pierre Bon-Bon from Poe’s “Bon-Bon,” had difficulties with speech when drinking heavily while in conversation with the devil. Dibble discloses that the medical field had a limited understanding of neurological conditions, such as epilepsy or coma that would explain apparent death. This problem was common even amongst appropriately trained physicians (2). But going back to “Loss of Breath,” Poe yet again uses a physician’s speech with comic purposes in the following excerpt, where he portrays Mr. Windenough:

Preliminaries being at length arranged, my acquaintance delivered me the respiration; for which (having carefully examined it) I gave him afterwards a receipt. [...] I should

have entered more minutely into the details of an occurrence by which [...] much new light might be thrown upon a highly interesting branch of physical philosophy (403).

It is interesting to note the detail with which he relays the process of handing in a receipt, as if it were a commercial transaction or a cure of a practitioner. The truth is that a tale such as “Loss of Breath” was beautifully innovative in a world where biomedical engineering, in particular bio-augmentation and bio-modification (this last one applicable to “The Man that was Used Up”) was unthinkable, and considered even ridiculous amongst his contemporaries. Poe foresaw that, in the future, artificial organs would replace and serve as substitute for damaged ones. A decade ago these artificial prostheses were used temporarily, as substitutes before the “real” donated organs arrived. Today, artificial organs serve as effectively as the ones we are born with. Technology is becoming a part of our bodies more and more each day, and more and more literally.

Poe’s Imagined Prosthetics and Biomodifications

Poe might have acquired influence for the bio-modifications in “The Man that was Used Up” from ancient Egypt. The first prosthetic known in history was precisely a three-part prosthetic toe found in a tomb in Egypt, dating from 950-710 BC, and described by Dr. Jacqueline Louise Finch as “the earliest tangible example of a prosthetic appliance” (190). The use of prosthetic limb technology during Poe’s lifetime had not advanced much and its documentation is scarce. The only recorded information we have is how amputations were handled during the Civil War. As Lauren Curtright remarks, “[Benjamin Franklin] Palmer invented and patented a wooden prosthetic leg. This artificial limb was patented in 1846, within Edgar Allan Poe’s lifetime and would see use in the medical wards of soldiers in the Civil War” (20). Interestingly enough, during Poe’s lifetime the oldest known prosthetic device was the Capua Leg, found in the Roman burial Santa Maria di Capua Vetere, but the fact that he set his most successful story about prosthetics in Egypt and not in Rome is yet Poe’s another splendid medical anticipations.

Four years later Edgar Allan Poe publishes “The Man that was Used Up,” a humorous and inventive story that can be considered ahead of its time. In it, General John A. B. C. Smith, made in almost its entirety of mechanical parts, is pieced together in front of the narrator of the story while he informs the narrator of how he lost each of his body parts. This is intriguing, but the story in itself is full of medical pathologies: firstly, the narrator renders that he is “constitutionally nervous” and that he cannot help it. “The slightest appearance of mystery [...] puts me at once into a pitiabile state of agitation” (405). The narrator displays a clear case of anxiety and nervousness. This may amount to an acceptance that hysteria is a female disease, though this idea changed. The narrator explains in the same medical speech before the appearance of General John A. B. C. Smith that “I could not imagine a more graceful curve than that of the os femoris, and there was just that due gentle prominence in the rear of the fibula which goes to the conformation of a properly proportioned calf” (406). Edgar Allan Poe proceeds to write about how delighted General John A. B. C. Smith was with the pace at which mechanical inventions were advancing. He points to these mechanical inventions multiple times in the seven pages that comprise the story, “[W]e are a wonderful people, and live in a wonderful age [...] there is really no end to the march of invention. [...] the most useful-the most truly useful-mechanical contrivances are daily springing up like mushrooms, [he had] a

deep sense of the valuable privileges we enjoy in living in this age of mechanical invention” (407). He adds, “[T]his is a wonderfully inventive age!” (408), and also “we live in a wonderfully inventive age! [...] this is the age of invention, most certainly the age, one may say—the age par excellence” (409). The underlining of the age in which they were living is maintained in the phrases such as: “poor fellow!—but this is a wonderful age for invention” and “‘pon my honor!—wonderfully inventive age!—pro-o-digies of valor!” (410). After all these comments on the path mechanical inventions were taking, the reader is tricked once more by Poe and is uncertain of whether the tale is simply highlighting the marvels and inventiveness of that era and comparing them to the modern age, or just takes the General’s continuous exclamations as purely ironical.

Poe might have thought that a perfect fit for the tale would be to insert an excerpt of Shakespeare’s *Othello*, where he praises mandragora. “[M]andragora / Nor all the drowsy syrups of the world / Shall ever medicine thee to that sweet sleep / Which thou ow’dst yesterday!” (412). The original Shakespearean text reads, “... Not poppy, nor mandragora / Nor all the drowsy syrups of the world / Shall ever medicine thee to that sweet sleep / Which thou owedst yesterday.” Mandragora was famous for being the anesthetic of the time until anesthesia as known today appeared in the nineteenth-century America. The chemicals contained in the root of mandragora are hallucinogenic, hypnotic and sedative, and some of its side effects are asphyxiation and accidental poisoning, depending on the composition of the specific plant. The narrator then proceeds to explain how General John A. B. C. Smith dressed himself with the prosthetics: “Pompey handed the bundle a very capital cork leg, already dressed, which it screwed on in a trice.” Then he adds that “Pompey, I’ll thank you now for that arm [...] Now, you dog, slip on my shoulders and bosom” (411).

Dental and buccal parts and prostheses were also peculiar at the time as Poe’s “The Man that was Used Up” stages: “[He] opened his [master’s] mouth with the knowing air of a horse-jockey, and adjusted therein a somewhat singular-looking machine, in a very dexterous manner, that I could not altogether comprehend” (412). With the advances of medicine today, it is hard to find someone who has not used orthodontic braces, especially at a young age. It seems to be the norm nowadays, but during Poe’s times it was regarded as something uncommon reserved for only a select few.

“The Business Man,” published in 1850, also follows this idea of medical peculiarity. Many speculations have been made about which medical pathology the narrator has, without much in common. In this particular story the narrator is injured and happy about it: “A good-hearted old Irish nurse [...] swinging me round two or knocked my head into a cocked hat against the bedpost. [...] A bump arose at once on my sinciput, and turned out to be as pretty an organ of order as one shall see on a summer’s day” (413). Because of this bump he had a “positive appetite for system and regularity which has made [him] the distinguished man of business that [he is]” (413). He decided his fate and made his fortune, the exact same case can be found in Bon-Bon. He “was barely three feet in height, and if his head was diminutively small, still it was impossible to behold the rotundity of his stomach without a sense of magnificence nearly bordering upon the sublime” (523). Poe had a very special interest in strange physiognomies and physical defects.

The Business Man, who is attractive because of the “delicate nature” of his constitution, is interesting to us because he shows clear signs of analgesia. He is very grateful to the Irish nurse who knocked his head, with what he describes as “stern habits of methodical accuracy” (418). The Business Man, despite having his neck dislocated and his “right leg capitally splintered,” goes home “in high glee” to drink a bottle of champagne. The doctors couldn’t identify his disease. That is why he describes his relationship with the physician as follows: “It was nearly a gone case with me then – just touch-and-go for six weeks – the physicians giving me up and all that sort of thing” (418). The Business Man ends up not finding a cure for his disease, but making a living off of it. The Merriam Webster Dictionary defines analgesia as “the loss of the ability to feel pain while conscious.” The term’s first known use was circa 1706. Eric Lewin Altschuler suggests in his article “Prescient description of frontal lobe syndrome in an Edgar Allan Poe tale” that Poe’s tale “contains an accurate description of frontal syndrome and features—only appreciated this century—of neuropsychiatric pathology resulting from paediatric injury” (902). When talking about descriptions and verbalization in Poe’s tales, Professor Felix Martín Gutiérrez resolves in his article “Edgar Allan Poe: Misery and Mystery in ‘The Man of the Crowd’” that

When some of [Poe’s] narrators ingeniously verbalize psychological self-deceptions, deriving, for example, pleasure from pain, beauty from ugliness or horror from general contemplation, or defiantly questioning the specter of their mental disease (“why will I say that I am mad?”, declares the narrator of ‘The Tell-Tale Heart’) we may wonder about the creative and ideological implications of those narrative acts of confession (160).

This ingenuous verbalization of psychological self-deceptions, as Martín Gutiérrez suggests, can also transcend to physical perceptions and apprehensiveness of their early medical characteristics and pathologies. Poe’s narrators not only offer upright acts of confession, but leave their pathologies unsolved so that we, as readers, can identify what is wrong with them and understand the whole context of the narrative. A clear example of this can be found in Poe’s tale *Bon-Bon*. When in conversation with Pierre Bon-Bon, the Devil remarks the following, “Indeed! - why it was I who told Aristotle that by sneezing, men expelled superfluous ideas through the *proboscis*” (530, my italics).

A proboscis is the tubular mouthpart or the elongated nose used for feeding and sucking that is only found in animals. However, the Devil is referring to the proboscis as something through which men “expelled superfluous ideas” (530). This is very interesting in itself because in teratology, proboscis (also called cyclopia) is a pathology encountered in one of every 16,000 born animals. Its causes have been attributed to ingesting cyclopamine, found in certain plants. The first known case dates from 1665 in Britain. Throughout all his tales, Poe is concerned with medicine, putrefaction, conservation of cadavers and especially physiognomy, explaining about the Devil that “his entire physiognomy was interestingly saturnine - even cadaverously pale” (528).

Poe's Medical Anticipation

Knowing that Poe was so versed in science and that he had foresight in medicine changes the way we read his works today. Some of the descriptions in his stories, taken by his contemporary critics as pure satire, were in fact describing realities that only today can be conceived as true: a person who is "alive, with the qualifications of the dead" as Poe writes in "Loss of Breath" meant little back then, but our understanding of it changed today because of our medical knowledge: it is the clear description of someone on vegetative, or minimally conscious, state. Dibble draws attention to what extent Poe's predictions came true and how medicine has changed since Poe published his stories:

Poe would have plenty of fodder for modern medical horror today. ICU physicians deal with M. Valdemars on a daily basis, and Egaeus, the protagonist from "Berenice," might think tooth harvesting a minor horror compared to modern-day organ procurement. There are certainly similarities between the prose in "The Premature Burial" and accounts of people awakening from comas or states of unconsciousness. Modern life support and medically induced comas result in states that could be likened to suspended animation, trances, and cataplexy. We like to think that modern technology prevents mistakes that may have happened in the nineteenth century, but is likely that history will judge twenty-first-century medical beliefs not much differently than some judge nineteenth-century physicians today (7).

Poe seems to have used his medical sources and knowledge very carefully, and employed large amounts of medical data throughout his best stories and some of his poems. He used medicine, medical theories and medical data analytically as a means of expressing and criticizing the society he lived in and the practices common then. Today, in an era when researchers have developed machines and prosthetics controlled by the electrical impulses of our brains, in an era where limbs can be replaced by machines and bio-modified almost to perfection, restoring damaged parts, it can be said that Edgar Allan Poe, apart from being a master of suspense and horror, was a writer capable of foreshadowing the main medical progress which occurred during the twentieth and twenty-first centuries.

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