Abstract:

The progress of the Natural Sciences at the dawn of the 19th century was decisive in the metaphysical debates between philosophers, as well as in literary circles around Europe. Driven by the breakthroughs in Biology, Chemistry, and Physiology, Medicine became an essential source of influence in philosophical research. The purpose of this paper is twofold: on the one hand, it will attempt to demonstrate the influence that Medicine had on the arguments advanced by a central philosopher during the 1800s, Arthur Schopenhauer, and, on the other hand, it will also trace such influence within Gothic fiction. The result will be a sober witness to the interdisciplinary nature of Philosophy, Medicine, and Literature.

Keywords: Medicine, Arthur Schopenhauer, Xavier Bichat, Mary Shelley, pessimism, physiology, vitalism, Gothic fiction.

Resumen:

El avance de las Ciencias Naturales durante los primeros años del siglo XIX fue decisivo en el desarrollo de los debates metafísicos entre filósofos y, a su vez, inspiró los temas de muchas tertulias literarias en Europa. Impulsada por los descubrimientos en Biología, Química y Fisiología, la
Medicina se convirtió en una fuente de inspiración en las investigaciones filosóficas de la época. El propósito de este artículo es demostrar el impacto que la Medicina tuvo sobre los argumentos de uno de los filósofos centrales de la época, Arthur Schopenhauer. También tratará de trazar esa influencia dentro de la literatura gótica. El resultado será un sobrio testimonio del carácter interdisciplinar de la Filosofía, la Medicina y la Literatura.

**Palabras clave:** Medicina, Arthur Schopenhauer, Xavier Bichat, Mary Shelley, pesimismo, fisiología, vitalismo, literatura gótica.

We are all familiar with Mary Shelley’s chilling novel, *Frankenstein* (1819). Born out of the small gatherings between Lord Byron, Dr Polidori¹, Percy Shelley, and the author herself during the summer of 1816, the tale weaves a set of events that reveal many of the fears associated with the advance of Science. Not in vain was the story about “The Modern Prometheus”. However, not many of us are aware of how closely the novel expresses the shift in the physician’s theories at the beginning of the 19ᵗʰ century. Shelley’s story clearly presents the intricate relation between Gothic fiction and the medical practices during that period, a relation that seemed to strike a chord with some widespread fears regarding the labors of physicians in their dissection laboratories. And although some literary critics have emphasized the strong psychiatric and biological element found in Gothic fiction during the Victorian period,² there is yet to be found a sustained effort in the direction of explaining the possible relation between the medical discourse and the effulgence of the Gothic mode during the first few decades of the 1800s.

Whilst the use of ancient settings and the supernatural are widely accepted as defining traits of the Gothic tradition, *Frankenstein* deviates somewhat from the norm and casts a new anxiety into the mix: The apprehension of Medicine as a means of meddling with the vital properties of the human body. The dawn of the 19ᵗʰ century was promising much more than the unhallowed practice of vivisection, for the rise of biology and chemistry gave way to many speculations, of which the reanimation of corpses was but one. Due to the rapid developments in Medicine, the body became a focal point of discussion, not only on the physician’s dissecting tables, but also out in public. Shelley herself admitted that the night before thinking up her ghost story, she listened to a conversation between her husband and Lord Byron in which “various philosophical doctrines were discussed, and among others the nature of the principle of life, and whether there was any probability of its ever being discovered”, a discussion that also touched upon the “experiments of Dr Darwin”³. It should be of no surprise that Victorian Gothic fiction picked up on those debates, dwelling on the atavistic link that Physiology seemed to establish between criminality and corpo-

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¹ Dr John William Polidori (1795-1821) was Lord Byron’s personal physician, travelling with him wherever he went in Europe. Encouraged by the ghost stories told during the gatherings between Byron and the Shelleys, Dr. Polidori wrote a brief story, *The Vampyre*, that introduced the vampire lore to English literature. Though the tale is not in and of itself of great interest here, it is fascinating to note that it was a physician who first introduced one of horror fiction’s most famous characters, an undead creature who thirsts for blood as a life-giving element. One is tempted to link the role of blood in Gothic vampirism with the rise of vitalism. Blood is, after all, a possible answer to the search for vital properties that define life. Whether it is simply coincidence or there is a specific reason behind Polidori’s choice is up for debate. Regardless, it seems medical discourse found its way into literature through cases such as these, which are not except in the 19ᵗʰ century. See Polidori, J., *The Vampyre and Other Tales of the Macabre*, Oxford, Oxford University Press, 2008.


eral deformations⁴. One may find such a theme in Bram Stoker’s *Dracula* or Stevenson’s *Dr Jekyll and Mr Hyde*. Yet long before those tales were conceived, Shelley had already penned a story that introduced the fears that Medical Science brought forth into a society unaccustomed to the practices of the modern physician. Her novel is a gate through which the medical discourse came into contact with literature, shaping the Gothic mode thereafter. In order to assess the gateway she opened up, a brief detour into the antecedents of Medicine must first be taken.

Prior to the work of George Ernst Stahl (1660-1734)⁵, the predominant anatomical model viewed the human body as a combination of mechanisms. Anatomy was supposed to carefully detail the inner workings of those complex machines that organisms seemed to resemble. Physician’s were encouraged to probe corpses, so that they could further their knowledge of physiology. The heart became a pump, veins mere conduits. The laws of physics were to be directly applied to the multiple phenomena of life. Although much progress was accomplished thanks to the mechanical model conceived by anatomists, the strong emphasis on the function of the body left out an unsettled inquiry that bothered many physicians⁶. It is all very well to understand how our bodies work, but what about life itself. It was as if no matter how deeply they examined the cadavers, the fundamental question about the nature of life was left unanswered. Particularly, those who were deeply involved with the study of diseases felt that a new way of thinking about the body and medicine in general was necessary. Towards the 1800s, there began a shift from a mechanistic model to one focused on defining life. As professor Roy Porter puts it, “Philosophies of the ‘machine of life’ characteristic of the age of Descartes gave way to the more dynamic idea of ‘vital properties’ or vitalism”⁷.

Perhaps one of the most striking chapters in *Frankenstein* is the one in which the protagonist describes the entire succession of events leading up to the reanimation of the corpse that was to be his creature. Although he was forced to undertake gruesome tasks in order to procure the body parts for his experiment, Doctor Frankenstein does not yield to the dismissal of his endeavor. He is convinced of his pursuit and will not let go till he has completed what he set out to accomplish. However interested he may be in the study of anatomy, but also in the question regarding the origin of life, that spark that animates organic beings. The issue is not so much how the body works, but why it comes alive. Doctor Frankenstein is truly a physician of the 19th century, for he is preoccupied—nay, obsessed—with life itself, rather than just with the organic functions that accompany it. He is a vitalist whose research is but the beginning of a terrifying story.

Thus is born the myth of the meddling physician whose ambition takes him into the realm of the unnatural or supernatural. Quite possibly one of the most distinguishing characters of Gothic fiction, the vitalist physician walks a tightrope between the physiological and the metaphysical.

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⁵ German chemist and physician who founded the Prussian medical school at the University of Halle in 1963. One of his ideas was that the soul or *anima* was beyond the grasp of anatomical research. It is interesting to note that Schopenhauer had a profound knowledge of the history of medicine, citing Stahl, among others that will be mentioned throughout the paper, in some notable passages of his work (see, for example, “Physiologie und Pathologie” in *Über den Willen in der Natur*).
⁶ For an interesting philosophical analysis of the repercussions of such a mechanistic model as conceived first by anatomists, see Sloterdijk, P., “La humillación por las máquinas”, *Sin salvación. Tras las huellas de Heidegger*, Madrid, Akal, 2011, pp. 228-237.
⁸ Shelley, M., *Frankenstein*, op. cit., p. 36.

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These doctors set forth into their gruesome affairs with a firm belief in their pursuit—they intend to break through the limits of their science—yet end up exploring ideas far detached from the strictly corporeal. Their unchecked vitalism takes them beyond the bounds of nature. During his research, Dr Frankenstein is a convinced of the powers promised by forthcoming medical theories, struggling to bridge the gap between alchemy and modern medicine. He believes reason will open up the dark secrets of life. However, the moment he sets eyes on the “demoniacal corpse”, all is changed. His creature is no longer an anatomical experiment, but a demon with supernatural strength that will haunt him for the entirety of the tale. From then on, Dr Frankenstein’s task shifts from the rational designing of a corpse, to the final vengeful crusade against his monster. Science gives way to a psychological battle within his own flesh. It is such a vitalistic pursuit that sets the stage for the later appearance of another famed Gothic physician: Dr Van Helsing, an expert on “obscure diseases” and “one of the most advanced scientists of his day”. Although a well trained specialist in the medical discipline, Van Helsing is pushed to his wits end in order to find the cause of Lucy’s malady. He is finally forced to seek an explanation that is beyond the bounds of Medical Science. He must take a leap into the metaphysical. Only then does he diagnose the problem: A vampire! Or who can forget the labors of Dr Jekyll, whose medical reasoning brought him to the foolhardy attempt of solving the quintessential predicament of human life: The burden of moral choice. According to him, the key to life rests in the multiplicity of selves. Chipping them off like splinters from a wooden block is his foolhardy resolution to the improvement of human vitality. Little by little, the transmutations of his body reveal a dark moral and metaphysical side to his experiments that he did not foresee. Both Van Helsing and Jekyll share, as did Frankenstein, a tug of war between their vitalist rationality and the supernatural, a defiant struggle that, as Goya famously put, “creates nightmares”. These fictional characters were conceived in the nineteenth century, they were the products of a literary vein that tapped into the rise of Medicine. They are part and parcel of Gothic fiction and bear witness to the influence of medical discourse in literature. And now, back to the development of medical practices.

The advent of Medical Science during the 1800s is intimately linked to the inquiries into the life-giving properties that manifested themselves in organic creatures. To study corpses was not nearly enough. One needed to grasp life in action, that is, during its struggle with disease. Not surprisingly, the first physician’s to acquire such a view were not simple anatomists, but those who meddled with the symptoms of disease day after day: pathologists. Whilst their surgical predecessors simply worried about describing the topography of the body, anatomical pathologists were particularly interested in how infections spread throughout the living tissues. They saw how vigorous patients slowly withered away once pathogens infected their host and spread through the organism. That panoramic perspective of life and death procured them a forthcoming understanding of Medicine as a rigorous science that attempted to interfere, at least temporarily, with the onset of death. As we shall see, that optimistic approach would soon be frustrated as physician’s realized the complexities of sickness and life. Just as Doctor Frankenstein was unsure of the fruits of his labor, so vitalist physicians were unaware of the trails their inquiries would blaze. But we are getting ahead of ourselves. Let us return to the shift towards vitalism at the turn of the 18th century.

Xavier Bichat (1771-1802) was, perhaps, one of the most famous pathologists to adopt such a shift in focus. Having lived through the French Revolution, he managed to publish a most influential work, *Recherches Physiologiques sur la Vie et la Mort* (1800). To understand the importance of that book, one must first understand the context under which it was put forth. The Revolution had brought with it fundamental changes in the institutions, one of them being the establishment of hospitals and the reform of medical education in 1794. The hospital experience permitted many
physicians to gain knowledge of the body through postmortem dissections. Thus the surgical science managed some notable breakthroughs. However, surgery preserved a certain isolation from the rest of the medical practitioners. Basically, surgeons limited themselves to the location of the organs, surgically removing all the necessary parts. Yet the reform of medical education introduced a novelty to the structure of medical degrees that proved essential to the rise of anatomical pathology: the fusing of surgical and medical instruction under one roof. All aspiring physicians during the years of the French Revolution encountered an education that stressed the medical approach with that of the surgical insights acquired in hospitals. Such an interdisciplinary fusion required a new theoretical framework, which is exactly what Bichat devised: “By elaborating a system of pathological anatomy that was a roadmap of the human body decipherable by surgeon and physician alike, Bichat responded to this need”11. The french pathologist bears witness to the remarkable impact that such hybrid approaches to knowledge have had throughout history. Moreover, his exposure to the rather morbid events that transpired every day in the famous Hôtel Dieu in Paris was also key to his understanding of disease within the structure of the human body. The constant treatment of injured soldiers and so on, permitted Bichat to shift focus from a merely descriptive approach, towards a perspective that evaluated the genesis and development of disease. And it was that new vantage point which ensured the birth of vitalism, a tradition that, as we have seen so far, was intimately linked to the rise of Medicine as a science at the dawn of the 19th century.

Consider the title of Bichat’s work, Recherches Physiologiques sur la Vie et la Mort: it offers a valuable clue on the importance of establishing the objectives of Medicine within the parameters of life and death. Both organic phenomena must be understood together. Whereas earlier physicians had emphasized the structure and nature of bodily organs and tissues without taking into account their connection with the organism’s vitality, Bichat was profoundly worried about defining life. Knowledge of the physiological functions must initiate with a grasp of what exactly life is. Thus Bichat’s book begins with a simple yet direct proposition: “Life is the collection of functions that resist death”12. The set of functions ascribed to the organs and tissues produces a resistance to their collective cessation, that is, they work against the expiration of the organism. This means that organic functions are now subordinated to life, they attend to vital attributes. Not only has life been upgraded to a fundamental phenomenon, but the mechanistic anatomical model is auxiliary to the former’s understanding. However important the Physical Sciences had been in establishing the anatomical conception of his time, Bichat consciously avoided such terminology in his research13. Life is determined by physics, but it certainly is not reducible to its laws. Something more is needed in the explanations of living bodies. And here, where Bichat’s argumentation drifts off into physiological subtleties, Schopenhauer picks up the trail in search of a metaphysical response to the inquiries of medical vitalism. Thus we arrive once again at 1816, only this time from Schopenhauer’s view.

Whilst Mary Shelley was conjuring up a tale on the dangers of the new Medical Science during her summer with Lord Byron, Schopenhauer was in Dresden conjuring up “a singular thought” [ein einziger Gedanke] that emerged intertwined with the advances in Medicine during the last quarter of a century14. Proof of Schopenhauer’s interest in the work of physicians is found

14 Schopenhauer deeply admired Lord Byron and it is quite possible that he saw the famous poet in Venice during the summer of 1819, although it seems that Schopenhauer himself admitted to not having taken the opportunity to speak to him in person ( Cartwright, D., Schopenhauer: A Biography, Cambridge, Cambridge University Press, 2010, pp. 344-345 and Safranski, R., Schopenhauer y los años salvajes de la filosofía, Barcelona, Tusquets, 2008, pp. 319-320).
in the numerous references to physiologists and pathologists in Die Welt als Wille und Vorstellung (1819), especially the second volume included in the second edition (1844). Also, one should not forget our German philosopher’s studies in Medicine and Natural Sciences during his enrollment at the University of Göttingen, which proved vital in the heated discussion that he held once with Hegel, while attempting to make a living off philosophy at the University of Berlin. Since attending lectures from the famed phrenologist Franz Joseph Gall during his apprenticeship in Hamburg, Schopenhauer had had special interest in the Natural Sciences. At Göttingen, one of his most distinguished professors was Johann Friedrich Blumenbach, a specialist in comparative anatomy. The analysis and consideration of corporal phenomena was an intrinsic part of his university years. After several semesters of study, he must have accumulated extensive knowledge on the subject, which, in turn, manifested itself in his philosophy. All these biographical anecdotes give us a more detailed portrait of the man behind the turbulent philosophy of Die Welt als Wille und Vorstellung. However, further clarification of the possible link between Schopenhauer’s metaphysics and the upsurge of Medical Science, along with the posterior frustrations of this healing discipline, requires a closer study of his work. Although some of his shorter works are useful, such as Über die Wille in der Natur (1836), the weight of his two volume work is, without a doubt, foremost, if one is to proceed toward a successful interpretation. What follows is a mere outline of some defining moments in Schopenhauer’s arguments that reveal the link between his philosophy and the developments of 19th century medicine.

The first question one must ask himself or herself is this: why are the references to pathologists and physiologists much more numerous in the second volume of Die Welt als Wille und Vorstellung? While the discourse employed in the first volume is peppered with several references and allusions, the complementary volume is exhaustively integrated with digressions on topics more akin to Medicine than Philosophy. The answer may not be too complicated. Young Schopenhauer concluded his major work very early in his career. It is a lucid explosion that draws from many of his prior experiences, his admiration for Kant, and his intense search for an all-encompassing philosophical thought. In a few hundred pages, Schopenhauer attempted to establish the complete topography of existence from diverse viewpoints. There was no space for lengthy drifts off the subject at hand. As such, Schopenhauer presented the fundamental expression of an interpretation that went beyond the mere bounds of one topic. His philosophy covers the entire geography of existence without, at that time, detailing every bit and piece. It will be the complementary volume’s task to make explicit the consequences of that einziger Gedanke, so that a full understanding might be reached. In other words, the first volume represents a fundamental expression of a philosophy whose intimate ties with the world are to be unveiled by a more detailed scrutiny of the breakthroughs in the Physical Sciences. That last part is precisely what the second volume attempts. After publishing the first volume, Schopenhauer goes forth and begins detailing the advances of science in order to justify his philosophy a posteriori. He spends more than twenty years assembling and surveying the advances of Science, so that he may legitimize his interpretation of the world. The lack of interest the public found in his work, in addition to Schopenhauer’s stubbornness, resulted in the latter’s insistent search for facts that supported his metaphysical claims. Whereas the first volume does not insist excessively on the contact between the world as representation and its metaphysical counterpart, after the publication of Über die

15 See Safranski, R., Schopenhauer y los años salvajes de la filosofía, op. cit., p. 334.
16 For a detailed account of the courses Schopenhauer took at Göttingen, see Cartwright, David, Schopenhauer: A Biography, op. cit., pp. 137-179.
17 The most notable reference that Schopenhauer offers is of Xavier Bichat throughout the 20th chapter of the second volume of Die Welt als Wille und Vorstellung. He even goes so far as too explicitly defend the intimate link between the anatomical pathologist and himself: “Daher lese, wer mich verstehn will, ihn [Xavier Bichat]; und wer ihn gründlicher verstehn will, als er sich selbst verstand, lese mich” (Schopenhauer, A., Sämtliche Werke, op. cit., vol II, p. 338).
Wille in der Natur, eighteen years later, his philosophical task will project itself in the scope of hermeneutics, that is, in the interpretation of the world and existence. To attain a satisfactory understanding, one must study closely what scientists seem to be discovering about the world as representation. Schopenhauer is not trying to explain the world, but rather comprehend it. It is of no surprise that where he found insights that held similarities with his own thought was in the medical discipline, particularly in the physiological and anatomical branches. As we have seen, early 19th century medical theories were oriented towards the discovery of vital properties held in organic tissues. Physicians were searching for a definition of life that was not merely descriptive. The human body was the predetermined space for such inquiries. While surgeons and anatomists raked their brains for possible explanations, Schopenhauer found that his metaphysical doctrine was an answer that fit quite well. Scientists simply were unable to penetrate into the metaphysical realm, for their explanations could only go so far, always leaving behind a series of qualitas occulta. Schopenhauer will attempt to bridge that gap in his own way. Thus, where Science left off, his metaphysics continued.

To further the understanding of this key idea, one must consider Schopenhauer’s analysis of the body. According to him, we are aware of our body in two very distinct ways. On the one hand, the body is perceived as an object extended in space. Exactly how an anatomist would put it: the body itself is but an object that has volume, which can be measured and manipulated with surgical tools. Its different tissues and organs can be represented, drawn on paper so that a reliable map of its structures may be established. But, on the other hand, one is also aware of his or her body in a completely different way—as a will. The awareness of the will in oneself is indistinguishable from the body. And thus, there is something more to the anatomical representations of the body. Schopenhauer’s metaphysics takes off the moment he raises this important question: is the world Representation and Will, just as in my twofold awareness of the body? It seems as if he has taken the vitalist’s inquiry regarding the ultimate properties of living tissues and pursued the answer into the realm of metaphysics. The body is the missing link between the world as representation and the world as will. The anatomists dared not reach so far, so they searched for explanations in the former, while Schopenhauer took a fateful step into the latter, the unknown “thing itself” [das Ding an sich]. He found a metaphysical loophole within a rigorously anatomical conception of the body, giving vitalism an unparalleled philosophical grounding. The strictly medical and biological topic of defining life through the study of living tissues was appropriated by a philosopher who had been educated in Medicine and Natural Science. If Bichat bridged the gap between anatomical and pathological studies, Schopenhauer also presented a provocative hybrid of the medical and philosophical perspectives.

There is yet another aspect of Schopenhauer’s philosophy that sheds light on the influence of medicine in his argumentation: pessimism. His pessimistic stance is perhaps one of the most profound in all of philosophy. The resignation towards the blind—red in the tooth—struggle of life is firmly based on the metaphysics which he develops in the second book of his mayor work. Also, Schopenhauer’s pessimism is in many ways indebted to the some of the most prominent thinkers of the Spanish Baroque period, especially Calderón de la Barca and Baltasar Gracián. Indeed, he had prepared a translation of Gracián’s Oráculo, which appeared posthumously in 1862. Although pessimism is traditionally linked to a moral stance regarding the world, sometimes, as is the case with some writers of the Spanish Baroque, it acquires a medical tone, claiming that life

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18 Ibid., vol. II, p. 238.
19 Safranski, R., Schopenhauer y los años salvajes de la filosofía, op. cit., p. 272.
21 Ibid., vol I, p. 51.
is diseased. Schopenhauer’s pessimism not only employs the metaphor of disease to explain the metaphysical ailments of the world, but also offers a possible cure, as any conscientious physician would, although far more surprising. The cure for the illness of life is not to apply a therapeutic treatment. Therapy tends to reduce pain in an attempt to bring the patient to health. Schopenhauer does not want to hear any of that. The only treatment available is a gradual exacerbation of pain. Existence must be understood through such a clinical metaphor. The only redemption possible from a world of pain and suffering is to aggravate the disease until one becomes completely detached of any hopes for health. In a sense, such a prognosis formed part of the therapeutic nihilism that was becoming ever so popular during the 19th century. Some physicians, like Joseph Dietl (1804-1878), claimed that medical practitioners could not cure patients and therefore should occupy themselves with the mere study of disease without any direct intervention. French doctors, like Bichat, were already very aware of the therapeutic limitations of their work. The initial euphoria regarding the advances of Medicine seemed to subside as the restricted capabilities of medical treatments became evident in the hospitals and clinics. Physicians were certainly establishing reliable methods for diagnosis, yet the therapeutic outlook of their treatments was lacking. One might say that the 1800s held little hope for therapy. Vitalism did not have all the answers, to the dismay of many patients suffering from disease. Schopenhauer’s pessimism is very much like that. Health is never an option in his philosophy. Disease is rampant, and the only cure is the worsening of its infection throughout the body. Art may generate momentary relief, yet the only treatment for the illness that is life is the “mortification of the will.” What began as a philosophical defense of vitalism, soon succumbed to an ascetic resignation of life itself. Certainly a chilling prognosis, as terrifying as the creature’s final farewell in Frankenstein: “Soon these burning miseries will be extinct. I shall ascend my funeral pile triumphantly and exult in the agony of the torturing flames.”

Thus a strange constellation begins to form: Gothic fiction, Medicine, and Philosophy swirl around each other, generating a set of attractions and repulsions that have shaped their correspondent trajectories. Theirs is a tale so interwoven that an isolated approach would fail to grasp the richness and complexity of it all. At the heart of such a tale remains the impact of vitalism, an array of events leading up to the 19th century that stemmed from the Natural Sciences. The failures and successes of that tradition manifested themselves not only in the theoretical framework of Medicine, but also in the philosophical and literary circles. One might suggest that the key to understanding all this lies in the manner in which the disciplinary boundaries are trespassed, or even infringed. How exactly those boundaries are established and crossed is interesting enough. Whether or not we may justly call such transgressions as “interdisciplinary” or “transdisciplinary” is yet to be resolved. What is certainly beyond a doubt is that the constellation formed by Gothic fiction, Medicine, and Philosophy proves far more intricate than at first conceived. All three bear witness to the comings and goings of ideas. These are not sedentary, but rather seem to travel from one parcel of human culture to another. Many times they suffer alterations in the process, attaching themselves to concepts that seemed far different. Therein lies the fascination of studying the
products of human intellect from a broader vantage point, one that searches for the surprising links that connect knowledge in all its forms. Only then will we be able to better understand culture in all its facets. May this article serve to stimulate scholars to such an end.

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