

## Science: Entropy, Degeneration, and Decadent Self-Destruction

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### Abstract:

This chapter considers the relationship between decadence, individualism, and science at the end of the nineteenth century. Individualism was considered key to the decadent style (Paul Bourget, 1881), yet it was also widely understood by sociologists and scientists to be symptomatic of nervous disease and social decline. This chapter argues that the overly civilized, nervous, and exhausted hero of decadent literature is the result of the widespread understanding of the human as an energy system, subject to the recently-formulated laws of thermodynamics. As closed (off) systems, these characters use up their energy in increasing disorder, 'continually suffering deductions, [until] these unceasing deductions finally result in the cessation of motion' (Herbert Spencer, 1880). Thus, many decadent texts can end with nothing other than the death of their protagonist.

### Keywords:

Thermodynamics, decadence, individualism, entropy, Walter Pater, Kate Chopin, Oscar Wilde, Joris-Karl Huysmans, Paul Bourget, Herbert Spencer

Contemporary scientific theories were integral to decadence and its literature, providing it with both material and methodology. In the preface to *Against Nature*, written 20 years after the novel's publication, Joris-Karl Huysmans notes that he desired "to break the limits of the novel, to bring art, science, history into it".<sup>1</sup> For Huysmans and other decadents, literature is akin to science, a form of experiment which reveals truths about human nature. The four texts considered in this chapter function as experiments in individualism, with their protagonists

subjected to the recently-formulated laws of thermodynamics—resulting in nervous exhaustion and self-destruction.

Lord Kelvin's<sup>ii</sup> assertion of the coming heat death of the universe was, in the second half of the nineteenth century, regularly mapped on to humanity, which was seen to be in its own decadence, using up the last of its energy. The self-destructive drive of many decadent characters—des Esseintes, Dorian Gray, Marius the Epicurean, and Edna Pontellier—can be explained in terms of nineteenth-century scientific discoveries that demonstrated entropy was the inevitable result of the expenditure of energy in a closed system. Thus, it is the isolation of individualism, which Paul Bourget (1883) argues is central to a decadent style, which results in the eventual destruction of decadent characters. As closed (off) systems, these characters are “continually suffering deductions, [until] these unceasing deductions finally result in the cessation of motion”.<sup>iii</sup> The process of entropy means many decadent texts can end only with the death of their protagonists.

### **Decadence, Individualism, and Biology**

In his ‘Theory of Decadence’, Paul Bourget defines decadence as a form of individualism:

The word ‘decadence’ is often used to designate the state of a society that produces too few individuals suited to the labors of communal life. A society is comparable to a living organism: like an organism, it consists of a collection of lesser organisms, which in turn consist of a collection of cells. The individual is the social cell. For the whole organism to function energetically, the lesser organisms must function energetically, but with a lesser energy. If the cells’ energy becomes independent, the organisms that make up the total organism similarly cease subordinating their energy to the total energy, and the subsequent anarchy leads to the decadence of the whole. The social organism does not escape this law: it succumbs to decadence as soon as the individual has begun to thrive under the influence of acquired well-being and heredity.<sup>iv</sup>

Bourget borrows the extended metaphor of society as an organism from Herbert Spencer who, in ‘The Social Organism’ (1860), argued that “societies agree with individual organisms” in that they are “small aggregations” of “component units,” requiring a “mutual dependence of parts” which becomes “at last so great, that the activity and life of each part is made possible only by

the activity and life of the rest”.<sup>v</sup> Mary Gluck argues that “the unprecedented success of Bourget’s definition can in part be explained by its ability to translate the cultural concerns of the age into the dominant language of science...The authority of science helped explain and legitimate the symptoms of doubt and relativism that characterised the culture of the age”.<sup>vi</sup> Yet, Bourget does not simply appropriate the language of science. His definition is grounded in the widespread scientific and sociological belief that individualism was the natural outcome of biological evolution. Herbert Spencer thus argued that individualism was the inevitable result of “the law of all progress”, which is the “change from the homogeneous to the heterogeneous”.<sup>vii</sup> Evolution itself is a process of individuation.

Yet, if Bourget borrows these ideas from Spencer, how do we reconcile the idea of scientific “progress” with a state that Bourget saw as the precursor to the destruction of society, and Émile Durkheim, a sociologist who pioneered the discipline of ‘suicidology’, argued was the cause of an epidemic of suicide across Europe? Durkheim writes:

Excessive individualism not only results in favoring the actions of suicidogenic causes, but it is itself such a cause. It not only frees man’s inclination to do away with himself from a protective obstacle, but creates this inclination out of whole cloth...<sup>viii</sup>

Durkheim believed that modernity, particularly widespread education and the secularization of society, led to a breakdown of community bonds; this in turn led to the self-destruction of the most individualistic members of society. Similarly, Bourget believed individualism necessarily leads to pessimism, insisting that “only individual reflection leads some of us, in spite of our hereditary optimism, to the highest level of negativity”.<sup>ix</sup>

Though couched as the ‘law of progress’, Spencer’s evolutionary view of individualism was entirely consistent with that of Bourget and Durkheim. Critical accounts of decadence have long associated it with degeneration, the evolutionary move from complexity to simplicity. Yet, the decadence Bourget identifies is the not result of degeneration, but of evolutionary advancement. In a far cry from the atavistic degeneration described by Cesare Lombroso, among others, the decline of decadence was linked—by biologists, physicians, sexologists,

sociologists, and more—to a state of over-evolution, over-civilization, which produced the ‘over-luxurious’ and ‘over-inquiring’ art described by Arthur Symons in 1899.<sup>x</sup> Thus, the philosopher Eduard von Hartmann, like Spencer, insisted that ‘individuation’ was the inevitable outcome of evolution. Furthermore, it is this process of ‘individuation’ which creates consciousness: “Individuation, with its train of egoism and wrong-doing and wrong-suffering, serves the origination of consciousness”.<sup>xi</sup> As the focus on ‘wrong-doing’ and ‘wrong-suffering’ makes clear, Hartmann believed that consciousness was inevitably followed by the development of consciousness *of suffering*, in which mankind realizes “the preponderating pain that every individual must endure”.<sup>xii</sup> Thus Hartmann believed individuation and consciousness naturally led to suicidal ideation: “But if ever an idea was *born as feeling*, it is the pessimistic sympathy with oneself and everything living and the longing after the peace of non-existence”.<sup>xiii</sup> Hartmann thus links evolutionary advancement with individualism, pessimism, and suicide.

In fact, decadence was seen to be symptomatic of biological overspecialization, in which species highly adapted to one environment are unable to adapt to new conditions. According to this theory, overspecialization was “the penultimate stage in evolution...prior to self-imposed extinction”.<sup>xiv</sup> It is this “self-imposed extinction” that Bourget points to when he associates the “highly civilized” and “unusually refined” with “pessimism”, “unaccountable neuroses”, and “nihilism”.<sup>xv</sup> Decadent characters like Des Esseintes can be seen to have fallen prey to overspecialization that renders them unadaptable to the modern environment and bound for extinction.

### **Decadence, Energy, and Physics**

Decadence has long been read largely in the light of Darwin’s theories. Yet, science at the end of the nineteenth century was, as Peter Bowler puts it, “Non-Darwinian”.<sup>xvi</sup> Much of the popular understanding of science came via men like Herbert Spencer, who brought scientific theory into sociological, economic, and political thought. Spencer’s “law of progress”, which underpins

Bourget's theory of decadent individualism, is grounded not in Darwinian evolution, but in Victorian physics. According to Spencer, the "universal law", "which determines progress of every kind", is that "every active force produces more than one change—every cause produces more than one effect", or what he describes as "the decomposition of one force into many forces".<sup>xvii</sup> He is interested in the "change" or transformation of "force", and more specifically change that is a form of "decomposition". This is simply a restatement of the first two laws of thermodynamics: 1) energy cannot be created or destroyed, it can only be transformed; and 2) the entropy (the unavailability of energy) of any isolated system will increase over time. Victorians interpreted the first law, the law of conservation of energy, positively, taking it as a promise of stability and longevity. In contrast, the second law, as Barri Gold demonstrates, "comes to dominate a Victorian mind-set increasingly concerned with dissipation and degradation".<sup>xviii</sup> Thus, Spencer wrote:

Towards what do these changes tend? Will they go on for ever? or will there be an end to them? Can things increase in heterogeneity through all future time? ... Or does it work towards some ultimate state admitting no further modification of like kind?<sup>xix</sup>

These ideas led him to ask, "are we not manifestly progressing towards omnipresent death?", and answer, "that such a state must be the outcome of the changes everywhere going on, seems beyond doubt."<sup>xx</sup> Thermodynamics leads Spencer to much the same pessimistic conclusion as Bourget and Hartmann.

As Spencer's emphatic use of "we" makes clear, thermodynamics was quickly applied to mankind, leading to anxiety over the expenditure of energy and the potential for exhaustion in the modern world. As Greg Myers argues, "thermodynamics has been intertwined with social thought, influenced by it and influencing it, since the earliest formulations".<sup>xxi</sup> Nineteenth-century physicians feared that humanity was using up its store of energy, resulting in an epidemic of 'neurasthenia', a nervous disorder resulting from the "exhaustion of the nervous system".<sup>xxii</sup> Decadent literature is populated by just such exhausted, nervous characters. They represent closed systems, isolated emotionally and intellectually from their age due to over-

developed individualism. Subject to the second law of thermodynamics, they succumb to entropy and self-destruction.

### ***Against Nature***

Perhaps the most isolated character of decadent fiction is Huysmans' Des Esseintes, who chooses to "soak himself in solitude" (5) due to his "contempt for humanity" (7) and his wish to "sequester himself from a loathsome age" (44).<sup>xxiii</sup> For Des Esseintes, being "completely at home" is synonymous with being "truly alone".<sup>xxiv</sup> These feelings are directly attributed to his individualism, or his "spirit of independence".<sup>xxv</sup> Des Esseintes prides himself on being "free of any bond, of any constraint",<sup>xxvi</sup> rejecting all the things that Durkheim believed tethered a man to life: religion, community, and family. The theme of individualism and isolation extends in *Against Nature* from plot to the very form of the novel. In the Preface of 1904, Huysmans frames the novel as an experiment in which he sought to "get rid of the traditional plot, to get rid even of love, of women, to concentrate the beam of light on one single character".<sup>xxvii</sup> Plot in the nineteenth century, as scholars like Elizabeth Deeds Ermarth have shown, is synonymous with networks and communities, as in the multi-plot novels of George Eliot or Charles Dickens.<sup>xxviii</sup> It is these networks of human life that Huysmans rejects in his focus on the individual alone. Yet, the novel is not simply a character study, but a thought experiment that explores the consequences of that isolation, on both the form of the novel and the character of Des Esseintes. Like Des Esseintes, the structure of the novel breaks down under the pressures of isolation and entropy, the familiar form of a novel interrupted by memories, intense sensory descriptions, and obsessive lists.

Debra Segura reads Des Esseintes' isolation in the light of nineteenth-century germ theory, suggesting that it represents an attempt to "protect himself from the impurities, filth and contagion that contemporary scientists posited as etiological factors in medical morbidity", and supports this reading with close attention to the theme of circulation in the novel.<sup>xxix</sup> It is true that Des Esseintes sees his "self-imposed exile" as "a particular sort of sanatorium where he can

convalesce and ultimately cure himself of his physical ailments".<sup>xxx</sup> Yet, it is also true that if his ailments were caused by the circulation of germs, his "hermetic utopia" would aid his recovery.<sup>xxx</sup> In contrast, I suggest that while *Des Esseintes* understands his illness in terms of contemporary germ theory, *Huysmans* frames his illness in terms of thermodynamics, or energy circulating within a system. Des Esseintes comes from a long aristocratic line which has "declined", "thus exhausting...what little strength they yet possessed," an exhaustion that plagues Des Esseintes.<sup>xxxii</sup> He begins the novel longing for death, having 'spent' his inheritance and his vitality.<sup>xxxiii</sup> The novel details his search for a cure, but it is his "idea of hiding himself away, far from the world", which he believes will revitalize him, that is the real source of his illness.<sup>xxxiv</sup> Thus Jørgensen argues, "The closed system of Des Esseintes's existence proves itself to be increasingly problematic since it aggravates, rather than improves, his exhaustion".<sup>xxxv</sup> Jørgensen follows Segura in proposing a bacteriological reading of the novel, but the aggravation of Des Esseintes' exhaustion in a closed system is better explained in terms of thermodynamics. Rather than germs, it is isolation itself that causes Des Esseintes' illness.

In fact, Des Esseintes constant longing for solitude is framed as a form of self harm:

He lived on himself, feeding on his own substance, like those torpid creatures that bury themselves away in a hole all winter long; solitude had affected his brain like an opiate. At first making him feel edgy and strained, it had brought on a lethargy haunted by vague reveries; it annihilated his plans and nullified his desires...<sup>xxxvi</sup>

Like a closed system which converts its energy from a useful to a non-useful form until it reaches a point of equilibrium, through the "gradual augmentation and diffusion of heat, cessation of motion, and exhaustion of potential energy,"<sup>xxxvii</sup> Des Esseintes' isolation leaves him in a state of self cannibalism. He 'feeds' upon himself, gradually moving from an energetic state to one of lethargy. The 'annihilation' and 'nullification' he feels reflects the "equilibration" that was the inevitable result of entropy.<sup>xxxviii</sup>

As in the theories of Hartmann and Durkheim, Des Esseintes' individualism and consequent exhaustion results in pessimism and nihilism. His sense of his own individualism, his "exceptional mind" and "lofty soul" leads him to develop a "Theory of Pessimism", "saving you

from disillusion by advising you to restrict your hopes as much as possible, or, if you felt sufficiently strong, not to let yourself conceive any at all”, a state that naturally leads to nihilism.<sup>xxxix</sup> Thus, in his discussion of Baudelaire, Des Esseintes traces the “pitiable autumn” of mankind, “the ever-increasing erosion” that leads to “exhaust[ion]”, “when nothing remains but the arid recollection of hardships endured.”<sup>xl</sup> Consciousness of human suffering, Des Esseintes argues, leads man to “follow a self-destructive pattern so as to suffer the more acutely”, until he experiences a “loathing for that existence” to which mankind is condemned.<sup>xli</sup> This suicidal wish leads Des Esseintes to isolate himself further, even as he understands that isolation makes him ill. He desires to “break violently out of the prison of his century”.<sup>xlii</sup> His isolation can be read as an extended suicide attempt.

At the end of the novel, the doctor summoned to Des Esseintes’ bedside is correct in his proposed cure: “he must abandon this solitary existence, return to Paris, get back into ordinary life, and try to enjoy himself, in short, like other people”.<sup>xliii</sup> Like Durkheim, the doctor suggests that community bonds will cure suicidal tendencies. Des Esseintes must make himself an open system, able to exchange energy with others: “He finally realized that the arguments of pessimism were incapable of giving him comfort, that only the impossible belief in a future life would give him peace”.<sup>xliv</sup> In the Preface of 1904, Huysmans reports that “only one writer” understood his book. Barbey d’Aurevilly “saw clearly” when he wrote that “after such a book, the only thing left for the author is to choose between the muzzle of a pistol and the foot of the cross”.<sup>xlv</sup> Death, or the social bonds of religion. Entropy or exchange. Both Des Esseintes and Huysmans resist decadence and choose the latter.

### ***Dorian Gray***

Oscar Wilde’s *The Picture of Dorian Gray* also warns of the consequences of decadent individualism, but when Dorian is presented with D’Aurevilly’s choice between “the muzzle of a pistol and the foot of the cross”, he chooses death. His suicide is an act of decadent individualism, the “inevitable fate of what is exquisite and rare to succumb to brutality”, in

Bourget's words.<sup>xlvi</sup> Like Des Esseintes, Dorian can be read as a thermodynamic system which breaks down under the force of inescapable entropy.

Wilde's novel is saturated in the language of late-Victorian science. His suggestive references to natural science, psychology, and chemistry have led scholars to consider the novel in the light of numerous branches of Victorian science. I suggest, however, that the laws of thermodynamics function as the driving force of the novel, offering the most insight into the mystery of the portrait and Dorian's death. Wilde was familiar with thermodynamics, particularly, Spencer's articulation of the 'law of progress',<sup>xlvii</sup> which insists that all matter is in the process of changing, "growing or decaying, accumulating matter or wearing away, integrating or disintegrating" until eventually "evolution has run its course—when an aggregate has reached that equilibrium in which its changes end..."<sup>xlviii</sup> It is the inevitability and inescapability of this 'progress' towards death that the novel traces.

Upon first noticing a change in the portrait, Dorian wonders if there may be some scientific explanation for it, "some subtle affinity between the chemical atoms that shaped themselves into form and colour on the canvas and the soul that was within him?"<sup>xlix</sup> Wilde never clearly defines the "affinity" that might exist between man and portrait, but the language used in this passage suggests an exchange of energy between Dorian and the portrait that causes the portrait to change state – much like heating water will cause it to become a gas—a reaction that affects the "form and colour" of the latter. Michael Davis notes that this passage suggestively blurs the distinction between organic and inorganic<sup>l</sup>, in a way that I suggest is best explained through thermodynamics. As Robert MacDougall explains, thermodynamics is "[an] idea that replaced a mechanical universe of discrete objects with one of continuous matter, alive with kinetic and potential energy".<sup>li</sup> The distinction between Dorian and the portrait is blurred in an understanding of the world as "one of continuous matter" and continuous exchange. Energy expended by Dorian, in the pursuit of pleasure, acts as a force upon the portrait. The mechanism by which the portrait changes is, therefore, couched in vague yet

plausible scientific language in line with a contemporary understanding of the relationship between systems.

Dorian believes the changes to the portrait mean he has escaped the inevitability of entropy. “Eternal youth, infinite passion, pleasures subtle and secret, wild joys and wilder sins—he was to have all these things. The portrait was to bear the burden of his shame: that was all.”<sup>lii</sup> In line with the widespread medical and scientific understanding of the human as akin to a machine, subject to the identical laws of thermodynamics, Dorian understands himself as a perpetual motion machine—one of the impossible dreams of the nineteenth century, a machine that could run forever with no fuel. In her work on narrative and thermodynamics, Tina Choi argues that “[e]ntropy demanded a linear narrative, while conservation suggested a closed, circulatory one”.<sup>liii</sup> Dorian fears linearity and human time; it is Henry’s reminder that everything is constantly in the process of decaying (a restatement of Spencer’s “law of progress”) that drives Dorian to make the wish in the first place. Once Dorian understands the fate of the portrait, he believes himself to have escape the ravages of time through the circulatory mechanism of the conservation of energy, read in the Victorian period as “the reassuring promise of a world of eternal returns”.<sup>liv</sup> He believes he has become “eternal” and “infinite”.

Yet, as Christopher Wadlaw reminds us, a perpetual motion machine that “def[ies] time” is an impossibility, “a constant reminder of the limits of human reason and the transience of human life—an unmelancholy mechanical *memento mori*.”<sup>lv</sup> What Dorian has failed to understand is that he and the portrait, linked by the ‘affinity’ between their atoms, form a *single* system. The energy that moves between Dorian and the portrait is subject to the second law of thermodynamics; in a closed system, the energy necessarily degrades. Hope endures while Dorian remains ‘open’, particularly to the influence of the moral characters in the novel like Basil Hallward. But Dorian has been learning individualism from Lord Henry, who preaches Spencerian ethics when he insists that “the highest of all duties” is “the duty one owes to one’s self” and that “to be good is to be in harmony with one’s self”.<sup>lvi</sup> Dorian takes these words to heart and retreats within himself, hiding the portrait and rendering himself a closed system.

Immediately after, Dorian becomes noticeably more closed off, suspicious of his servants and withdrawn from his friends. Though his body moves in society, unlike Des Esseintes, Dorian's soul—in the form of the portrait—is shut away from human contact. As Bourget, Durkheim, and Hartmann insisted, this kind of individualism leads to self-destruction and suicide. It is the murder of Basil Hallward that seals Dorian's fate. As the first person to see the changed portrait, Basil represents the potential for opening the closed system of Dorian's soul. Dorian feels this potential; "He felt a terrible joy at the thought that some one else was to share his secret."<sup>lvii</sup> Yet, entropy has already occurred; in his behaviour Michael Gillespie sees "a compulsion to maintain stasis."<sup>lviii</sup> To preserve his secret, his isolation, he destroys Basil, and in doing so, destroys himself. Dissolution has taken hold.

Dorian's death is not always considered a suicide. Gillespie, for instance, reads it as "an unfortunate accident, the consequence of reckless behaviour and not considered action."<sup>lix</sup> Yet, it cannot be denied that Dorian literally commits self murder, attacking the physical manifestation of his own soul. His feelings leading up to this moment, too, are indicative of suicidal ideation. He becomes "indifferent to life", and at the moment he takes up the knife he seeks to escape his "monstrous soul-life" and "be at peace".<sup>lx</sup> Though time catches up with his body, leaving him "withered, wrinkled, and loathsome of visage", Dorian does achieve the "peace" he seeks in the form of equilibrium.<sup>lxi</sup> The "stasis" and "stagnation" that Gillespie identifies in Dorian is indicative of the final stage of entropy, "that equilibrium in which...changes end".<sup>lxii</sup>

Dorian's death is manifestly ugly, the final culmination of the ugliness of sin which perverts his quest for beauty and pleasure. Yet, Bourget finds beauty in the decadent drive to destruction:

If the citizens of decadence are inferior contributors to the greatness of the country, are they not, on the other hand, very superior artists within their own souls?...The great argument against decadences is that they have no future, and that barbarity crushes them. But is it not the inevitable fate of what is exquisite and rare to succumb to brutality? One might well prize such a failing, and prefer the defeat of decadent Athens to the triumph of the sanguinary Macedonian.<sup>lxiii</sup>

Here Bourget does not describe beauty produced *in spite* of decadence and destruction, but *because* of it. It is the art of what is “solitary” and “sterile”, the “pain” of “failing”.<sup>lxiv</sup> This beauty in failure through the process of decadent “equilibration”(in Spencer’s terms) is most evident in Walter Pater’s *Marius the Epicurean* (1885).

*Marius* is set in the second century, in the decadence of the Roman empire, when Rome “had reached its perfection...a perfection which indicated but too surely the eve of its decline”.<sup>lxv</sup> Marius exists on a precipice, “that little point of the present moment...between a past which has just ceased to be and the future which may never come”.<sup>lxvi</sup> Marius’ future *won’t* come; like Dorian, he dies at the end of his novel. More widely, decline and death perpetually threaten the novel, formally and thematically. Like Des Esseintes and Dorian, Marius is the last in a noble, but decaying, line: “the young Marius represented an ancient family whose estate had come down to him much curtailed through the extravagance of a certain Marcellus two generations before”.<sup>lxvii</sup> Both the wealth and the vitality of the family have been ‘spent’, leaving Marius depleted in multiple ways. The novel, too, shows signs of dissolution. Any forward trajectory of the bildungsroman is disrupted by lengthy quotation (including a seventeen-page translation of Apuleius’ Cupid and Psyche from the *Golden Ass*), temporal interruptions, and summations of philosophic tradition. These disruptions render Marius almost a side note in his own novel, pushed to the margins formally as he takes to the margins personally, due to his introspective individualism. From an early age, Marius takes “the individual for [the] measure of all things”.<sup>lxviii</sup> Des Esseintes physically withdraws, Dorian emotionally withdraws, and Marius intellectually withdraws, living “in the realm of imagination” and feeling keenly “a large dissidence between an inward and somewhat exclusive world of his own vivid apprehensions, and the unimproved, unheightened reality of the world of those about him”.<sup>lxix</sup> This “dissidence” renders Marius a “but a spectator” of his own life, unable even as a boy to join in the interests of his peers.<sup>lxx</sup>

Pater was deeply engaged with Victorian science. Kanarakis Yannis asserts that Pater was “one of the first who attempted to modernize art by accommodating the givens of scientific advance

into his aesthetic speculation and literary practice”.<sup>lxxi</sup> In *Plato and Platonism* (1893), Pater associates Darwinism with the Heraclitean flux which threatens humanity with dangerous solipsism. As Kate Hext argues, “Pater’s interaction with Darwin and Darwinism, especially when writing of the individual, is one of resistance and reinterpretation as well as acquiescence...The problem of how to conceive the modern individual in deep time, which is the problem posed for Pater by Darwin, must be solved: yet not through Darwinian science”.<sup>lxxii</sup> Hext suggests that Pater turns to art to solve this problem, but, I argue, it is art that is deeply influenced by science—just not Darwinism. For Pater, physics and the laws of thermodynamics are a comforting counter to Darwinian flux. Throughout his oeuvre, and particularly prominently in *The Renaissance*, *Plato and Platonism*, and *Marius*, the conservation of energy is presented as a stabilizing force. Marius, who rejects the dogma of all religions and philosophies in his effort to to live “in that full stream of refined sensation”, nevertheless feels certain of a uniting presence in the world, which he calls “the one true being”.<sup>lxxiii</sup> This ‘being’ is identified as “a perpetual energy,” “a subtle, perpetual change in all visible things”. Thus, he can identify “the universal motion of all natural things...the movement of the universal life, in which things, and men’s impressions of them, were every ‘coming to be,’ alternately consumed and renewed”.<sup>lxxiv</sup> This line echoes Spencer’s conception of “a universe everywhere in motion”,<sup>lxxv</sup> and suggests the comforting notion of a guiding presence larger than the individual.

Yet, Pater’s understanding of the world through the lens of thermodynamics leads him to the same paradoxical conclusion that Victorian physics revealed: all this “energy” and “motion” will lead to stasis and death. Thus, the emperor Marcus Aurelius preaches the acceptance of mortality, insisting, “to cease from action—the ending of thing effort to think and do:--there is no evil in that”.<sup>lxxvi</sup> Yet, Marius has already ‘ceased from action’. He is a static, rather than active, character, “on the whole more given to contemplation than to action”.<sup>lxxvii</sup> He watches and evaluates, but he does almost nothing throughout the novel. In contrast to the violence of Dorian’s suicide, Marius’ death—while still clearly self-destruction—seems to occur for no reason except that the novel must come to an end. He deliberately exposes himself to both a plague and religious persecution, managing to die of the former just before he is executed

under the latter, but there is very little violence or even action in the final pages of the novel. He simply seems to run out of energy and pages.

This is made particularly clear in the description of death as a “dissolution”, comparable to the eventual “dissolution” of the universe: “in the dissolution of a world, or in that dissolution of self, which is for every one no less than the dissolution of the world it represents for him”.<sup>lxxviii</sup> The word ‘dissolution’—the separation of a mass into parts or elements or atoms—signals the particular way Marius (and Pater) conceives of death: not as an ending but as a dispersal. It is the word Spencer chooses to describe the final stages of entropy, the “absorption of motion and concomitant disintegration of matter”.<sup>lxxix</sup> Crucially for Pater and for decadence as a whole, dissolution follows the moment when the system “has developed into the highest form permitted by the character of its units”.<sup>lxxx</sup> Here, again, we see that decadence is the opposite of degeneration. It is progress, but progress that must necessarily—like all things—come to an end. It is perfection that must lead to extinction. The pessimism, even nihilism, of decadence is evident in dissolution. Marius echoes the sentiments of Hartmann when he suggests that man has developed only to realize his own misery, “for there is a certain grief in things as they are, in man as he has come to be...which makes every stage of life like a dying over and over again”. Pater is clear that the “nervous perfection men have reached” leads to this “grief”, the awareness of suffering and mortality.<sup>lxxxi</sup>

This is a melancholy but not hopeless end to the novel. Marius witnesses the early growth of Christianity, and chooses to die so that his friend Cornelius may live and grow in the new faith. Yet, many critics are skeptical of the consolation of religion in the face of Marius’ pessimism, particularly as Marius assures the reader that though he is celebrated as a religious martyr, he never accepts the Christian faith.<sup>lxxxii</sup> Thus, I suggest that it is not religion which offers consolation in the face of death, but rather the natural world and the laws that govern it. In the final paragraphs of the novel, Pater turns to the law of conservation in order to offer his readers what Barri Gold calls “the consolation of physics”, which “made it possible to reconceive loss as transformation”.<sup>lxxxiii</sup> The law of conservation confirms that energy remains constant; it can be transformed, but not destroyed. Thus, Spencer tells us that dissolution is the “change from a

concentrated, perceptible state to a dispersed, imperceptible state”.<sup>lxxxiv</sup> Here, we find Pater’s answer to the question of “how to reconcile the individual with society”. Spencer’s “concentrated” state represents the isolated individual, drawn in upon himself, while the “dispersed” state, though “imperceptible”, becomes integrated with the wider world.

Earlier in the novel, Marius admits the power of a feeling of social belonging:

Without him there is a venerable system of sentiment and ideas, widely extended in time and place, actually a kind of impregnable possession of human life—a system, which, like some other great products of the conjoint efforts of human mind through many generations, is rich in the world’s experience; so that, in attaching oneself to that, one lets in a great time of that experience, and makes, as it were with a single step, a great experience of one’s own; with a great, consequent increase to one’s mind, of colour, variety, and relief, in the spectacle of men and things. The mere sense of belonging to a system—an imperial system or organisation—has, in itself, the expanding power of a great experience...<sup>lxxxv</sup>

Marius is unable to ‘attach’ himself to one of the conventional systems that provides social cohesion, like religion or philosophy. Instead, it is in the “one true being”, which is not God but “energy”, that Marius finds a system to which he has always belonged. This is a sentiment that appears throughout Pater’s writing; in the essay ‘Wordsworth’ (1874), Pater writes: “the network of man and nature was seen to be pervaded by a common, universal life...the one universal spirit”.<sup>lxxxvi</sup> In death, or rather dissolution, Marius feels “the link of general brotherhood, the feeling of human kinship”, and along with this human kinship comes kinship with the whole of the natural world: “the scent of the new-mown hay”, “the sunlight,” “the sounds of the cattle”.<sup>lxxxvii</sup> This passage recalls the conclusion to *The Renaissance*, which similarly answers the solipsistic flux with a reminder of humanity’s kinship with the entire universe, through the conservation of shared matter and energy:

What is the whole physical life in that moment but a combination of natural elements to which science gives their names? But these elements, phosphorus and lime and delicate fibres, are present not in the human body alone...Like the elements of which we are composed, the action of these forces extends beyond us; it rusts iron and ripens corn. Far out on every side of us these elements are broadcast, driven by many forces; and birth and gesture and death and the springing of violets from the grass are but a few out of ten thousand resulting combinations.<sup>lxxxviii</sup>

This is the ultimate ‘consolation of physics’. Thermodynamics tells us that all systems succumb to entropy, but it also shows us that we exist in the deepest kinship with all other things in the universe, made of the same matter and subject to the same forces. For Pater, this is enough.

Marius finds consolation in death, but the novel as a whole is still haunted by a tenor of failure. In contrast, I will suggest that Kate Chopin present self-destruction not only as the “inevitable fate” (Bourget) of her protagonist, Edna Pontellier, but as an assertion of individuality and independence. Chopin appropriates tropes of decadent thermodynamics— isolation, enervation, and self-destruction—but reformulates them position suicide as an essential perseveration of self in defiance of the strictures of society.

The contours of Chopin’s tale are familiar. Edna ‘awakens’ into individualism as she begins “to realize her position in the universe as a human being, and to recognize her relations as an individual to the world within and about her”.<sup>lxxxix</sup> As in the other texts considered, this realization leads to isolation. *The Awakening* originally bore the title “The Solitary Soul”; like Marius, Edna draws a distinction between “the outward existence which conforms, [and] the inward life which questions”.<sup>xc</sup> Edna withdraws into this ‘inward life’ in search of personal fulfillment as an individual. Yet, enervation naturally follows her isolation. She becomes “self absorbed” with “No interest in anything about her”.<sup>xc<sup>i</sup></sup> She feels as if she is in “an alien world which had suddenly become antagonistic”.<sup>xc<sup>ii</sup></sup> Edna experiences the physical toll of mental emancipation: she possesses frenetic energy when around others, an “excitement” likened to illness, “like a remittent fever”, but when alone this energy leaves her.<sup>xc<sup>iii</sup></sup> “A radiant peace settled upon her when she at last found herself alone”; “A sense of restfulness invaded her, such as she had not known before”.<sup>xc<sup>iv</sup></sup> This restfulness mirrors the equilibrium that Marius finds in death. And like Des Esseintes, Dorian, and Marius, entropy leads Edna to self-destruction.

Despite the familiar structure of this narrative, Edna’s quest for independence is distinct from the others considered in this chapter. For Edna, individualism means “relieving herself of

obligations” to others, yet she lacks the freedom to do this that Des Esseintes, Dorian, and Marius enjoyed.<sup>xcv</sup> She is already a mother to two children. Early in the novel Chopin makes clear the expectations that society places on mothers. “Mother women”, like the saintly Adèle Ratignolle, “idolized their husband, worshipped their children, and esteemed it a holy privilege to efface themselves as individuals and grow wings as ministering angels.”<sup>xcvi</sup> The central conflict of the novel is between this ideal of motherhood and the equally pressing ideal of American possessive individualism: “According to this concept of self evolving from the seventeenth century, every man has property in himself and thus the right to manage himself, his labor, and his property as he wishes”.<sup>xcvii</sup> As Brown makes clear, this was “an individualism most available to (white) men.”<sup>xcviii</sup> Chopin insists that women can only have access to this form of liberty if, like Mademoiselle Reisz, they forego motherhood. Unlike earlier nineteenth-century explorations of women’s rights, Edna shakes off her husband and his control with relative ease; his claims to her as property are never given serious weight. But she is unable to shake off the “obligation” she has to her children. Edna’s resolution “never again to belong to another than herself” falters when she witnesses Adèle in childbirth: “I want to be let alone. Nobody has any right—except children, perhaps—and even then, it seems to me—or it did seem—”<sup>xcix</sup> Edna struggles in her conception of individualism, between what Gagnier identifies as “cooperative individualism” theorized by Adam Smith, in which division of labor “allows for interdependence and productivity”, and a biological model of “competitive individualism”, grounded in Social Darwinism and celebrating “the self-interested, self-maximizing individual”.<sup>c</sup> Edna realizes that the individualism she has been cultivating is the latter kind; her happiness must come at the expense of other’s. “I don’t want anything but my own way. That is wanting a good deal, of course, when you have to trample upon the lives, the hearts, the prejudices of others”.<sup>ci</sup> She might accept this and, like Mademoiselle Reisz, be content to “trample upon the rights of others” in order to get her way, but Edna insists, “I shouldn’t want to trample upon the little lives”.<sup>cii</sup> To sacrifice the happiness of another adult—her husband or her lovers—is different than sacrificing the happiness of her own children. Spencer’s individualist ethics asserted that every man had a right to his own property, liberty, and happiness, as long as it

“may be gratified without injury to his fellow-creatures”.<sup>ciii</sup> I argue that Edna believes her suicide to be the best way to enact these ethics, to seek liberty without harming others.

I disagree, therefore, with Peter Ramos’ assertion that Edna’s suicide serves as a “subtle, but intentionally crafted, warning...of what can happen to a protagonist whose unwillingness to continue dedicating herself to any of the available social roles leads her to abandon all of them in favor of an enticing yet ever-elusive freedom”.<sup>civ</sup> Whether or not we agree with her, Edna believes herself to be fulfilling the duties of her ‘social role’ as a mother. She protects her children by framing her death as an unfortunate accident, while still managing to preserve her independence. In her final moments, “she thought of Léonce and the children. They were a part of her life. But they need not have thought that they could possess her, body and soul.”<sup>cv</sup> Her ‘life’ is tied to the children, but Edna insists on the reality of a self that is separate from that life.

Earlier in the novel, Edna explains to Adèle that “I would give up the unessential; I would give my money, I would give my life for my children; but I wouldn’t give myself.”<sup>cvi</sup> The distinction that Edna draws between ‘life’ and ‘self’, which baffles Adèle, is evocative of Schopenhauer’s insistence that self and will as separate from life. Thus, Schopenhauer argues:

Far from being denial of the will, suicide is a phenomenon of strong assertion of will... The vehemence with which it wills life, and revolts against what hinders it, namely, suffering, brings it to the point of destroying itself; so that the individual will, by its own act, puts an end to that body which is merely its particular visible expression, rather than permit suffering to break the will. Just because the suicide cannot give up willing, he gives up living.<sup>cvii</sup>

Edna, too, ‘cannot give up willing’, cannot reconcile herself to becoming one of the perfect ministering angels of motherhood. Schopenhauer thus casts suicide as an act of possessive individualism, arguing that “they make the nonsensical remark that suicide is *wrong*; when it is quite obvious that there is nothing in the world to which every man has a more unassailable title than to his own life and person.”<sup>cviii</sup> If one has the right to life, liberty, and the pursuit of happiness, then one has the equal right to discard them. Chopin appropriates the decadent

narrative of isolation and self-destruction to advocate for her heroine's right to self-possession, even to the point of death.

It seems clear that we can read Edna's death within the schema Carlos Gutiérrez-Jones traces in which "artists frequently cast self-destructive episodes as catalysts for beneficial change".<sup>cxix</sup> Gutiérrez-Jones looks only at attempted suicides from which protagonists can learn in what he calls "suicidal 'rebooting'"<sup>cx</sup>, yet read in the light of Schopenhauer's assertion that suicide is a "transcendental change", we can see Edna seeking this same "beneficial change" or "rebooting" in her final act. Many critics have, of course, read the ending of *The Awakening* as a moment of feminist defiance of patriarchal society. Within this reading, critics see the ending as activating a "beneficial change" not for Edna, but for society. As Mary Gluck argues, decadence is not simply a critique, but a corrective: "within the organic metaphor of society was not only the concept of degeneration, but also of regeneration. Paradoxically, the discourse of degeneration was both a diagnostic tool and a therapeutic vision, whose ultimate goal was the regeneration of society."<sup>cx</sup> Yet, within the wider framework of thermodynamic narratives traced here, we can further see this "beneficial change" or rejuvenation available to Edna herself, through the "consolation of physics". In her final moment, when her energy has been completely exhausted, Edna experiences not an *end* but a *return*, to her early childhood: "Edna heard her father's voice and her sister Margaret's. She heard the barking of an old dog that was chained to the sycamore tree. The spurs of the cavalry officer clanged as he walked across the porch. There was the hum of bees, and the musky odor of pinks filled the air."<sup>cxii</sup> The invocation of cyclical time suggests that her death is a rebirth, through which she is reintegrated into her past and also into the natural world. The cyclical or circulatory language suggests that, in death, Edna defies entropy through the conservation of energy. She is transformed, not destroyed.

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- <sup>i</sup> Joris-Karl Huysmans, *Against Nature*, trans. Margaret Mauldon (Oxford: Oxford University Press, 2009), 193.
- <sup>ii</sup> William Thomson, "On a universal tendency in nature to the dissipation of mechanical energy," *The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science* 4, no. 25 (1852): 304-306.
- <sup>iii</sup> Herbert Spencer, *First Principles*, sixth edition (London: Watts & Co, 1946), 438.
- <sup>iv</sup> Paul Bourget, "The Example of Baudelaire," trans. Nancy O'Connor, *New England Review* 30, no. 2 (2009): 98.
- <sup>v</sup> Herbert Spencer, "The Social Organism," *Essays: Scientific, Political and Speculative*, vol. I (London: William and Norgate, 1891), 272.
- <sup>vi</sup> Mary Gluck, "Decadence as historical myth and cultural theory," *European Review of History: Revue europeenne d'histoire* 21, no. 3 (2014): 355.
- <sup>vii</sup> Herbert Spencer, "Progress: Its Law and Cause," *Humboldt Library of Popular Science Literature*, No. 17 (1881): 234.
- <sup>viii</sup> Émile Durkheim, *Suicide: A Study in Sociology*, trans. John A. Spaulding and George Simpson (London and New York: Routledge, 2005), 168.
- <sup>ix</sup> Bourget, "Baudelaire," 95.
- <sup>x x</sup> Arthur Symons, *The Symbolist Movement in Literature*, ed. Matthew Creasy (Manchester: Fyfield Books, 2014), 170.
- <sup>xi</sup> Eduard von Hartmann, *Philosophy of the Unconscious*, vol. 3, trans. by William Chatterton Coupland (London: Kegan Paul, 1893), 121.
- <sup>xii</sup> Hartmann, *Unconscious*, 98.
- <sup>xiii</sup> Hartmann, *Unconscious*, 138.
- <sup>xiv</sup> Daniel R. Brooks, Eric P. Hoberg, and Walter A. Boeger, *The Stockholm Paradigm: Climate Change and Emerging Disease* (Chicago and London: The University of Chicago Press, 2019), 32.
- <sup>xv</sup> Bourget, "Baudelaire," 94-5.
- <sup>xvi</sup> Peter J. Bowler, *The Non-Darwinian Revolution: Reinterpreting a History Myth* (Baltimore: Johns Hopkins University Press, 1992).
- <sup>xvii</sup> Spencer, "Progress," 243-4.
- <sup>xviii</sup> Barri J. Gold, *ThermoPoetics: Energy in Victorian Literature and Science* (Cambridge, Mass. and London: MIT Press, 2010), 452.
- <sup>xix</sup> Spencer, *First Principles*, 437.
- <sup>xx</sup> Spencer, *First Principles*, 462.
- <sup>xxi</sup> Greg Myers, "Nineteenth-Century Popularizations of Thermodynamics and the Rhetoric of Social Prophecy," *Victorian Studies* 29, no. 1 (1985): 35.
- <sup>xxii</sup> George M. Beard, "Neurasthenia, or Nervous Exhaustion," *The Boston Medical and Surgical Journal* 3, No. 13 (1869): 117. See also Richard von Krafft-Ebing, *Psychopathia Sexualis*, trans. Charles Gilbert Chaddock (Philadelphia and London: F.A. Davis Co., 1892) and Sally Shuttleworth's discussion of 'modern diseases' in "Diseases of City Life and One of Our Conquerors," *The Yearbook of English Studies* 49 (2019): 103-119.
- <sup>xxiii</sup> Huysmans, 5, 7, 44.

- xxiv Huysmans, 12.
- xxv Huysmans, 64.
- xxvi Huysmans, 64.
- xxvii Huysmans, 194.
- xxviii Elizabeth Deeds Ermarth, *The English Novel in History, 1840-1895* (London and New York, Routledge, 1997).
- xxix Debra Segura, "The Dream of the Hermetic Utopia: "A rebours" as Allegory for the World after Germ Theory," *Discourse* 29, No. 1, (2007): 51.
- xxx Segura, "Utopia," 50, 51.
- xxxi Segura, "Utopia," 49.
- xxxii Huysmans, 3.
- xxxiii Huysmans, 8.
- xxxiv Huysmans, 8.
- xxxv Jens Lohfert Jørgensen, "The Bacteriological Modernism of Joris-Karl Huysmans's Against Nature," *Literature and Medicine* 31, no. 1 (2013): 104.
- xxxvi Huysmans, 62.
- xxxvii William Thomson, "'On the Age of the Sun's Heat," *Macmillan's Magazine* 5, no. 29 (1862): 388.
- xxxviii Spencer, *First Principles*, 437.
- xxxix Huysmans, 70.
- xl Huysmans, 117.
- xli Huysmans, 118, 138.
- xlii Huysmans, 147.
- xliii Huysmans, 173.
- xliv Huysmans, 180.
- xlv Huysmans, 197.
- xlvi Bourget, "Baudelaire," 99.
- xlvii Michael Davis, "Mind and Matter in the *Picture of Dorian Gray*," *Victorian Literature and Culture* 41, no. 3 (2013): 557.
- xlviii Spencer, *First Principles*, 251, 465.
- lix Oscar Wilde, *The Picture of Dorian Gray* (Oxford: Oxford University Press, 1998), 78.
- <sup>1</sup> Davis, "Mind and Matter," 547.
- <sup>2</sup> Robert MacDougall, "Sympathetic Physics: The Keely Motor and the Laws of Thermodynamics in Nineteenth-Century Culture," *Technology and Culture* 60, no. 2 (2019): 443.
- <sup>3</sup> Wilde, 86.
- <sup>4</sup> Tina Choi, "Forms of Closure: The First Law of Thermodynamics and Victorian Narrative," *ELH* 74, no. 2 (2007): 307.
- <sup>5</sup> Choi, "Forms," 302.
- <sup>6</sup> Christopher Wadlaw, "Patents for Perpetual Motion Machines," *Journal of Intellectual Property Law & Practice* 2.3 (2007): 137.
- <sup>7</sup> Wilde, 14, 63.
- <sup>8</sup> Wilde, 125.
- <sup>9</sup> Michael Patrick Gillespie, "Picturing Dorian Gray: Resistant Readings in Wilde's Novel," *English Literature in Transition, 1880-1920* 35, no. 1 (1992): 21.

- lix Gillespie, 22.
- lx Wilde, 164, 183.
- lxi Wilde, 184.
- lxii Spencer, *First Principles*, 464.
- lxiii Bourget, "Baudelaire," 99.
- lxiv Bourget, "Baudelaire," 99.
- lxv Walter Pater, *Marius the Epicurean* (Kansas City: Valancourt Books, 2008), 114.
- lxvi Pater, 93.
- lxvii Pater, 13.
- lxviii Pater, 20.
- lxix Pater, 20, 89.
- lxx Pater, 34.
- lxxi Kanarakis Yannis, "The Aesthete as Scientist: Walter Pater and Nineteenth Century Science," *Victorian Network* 2, no. 1 (2010): 88.
- lxxii Kate Hext, *Walter Pater: Individualism and Aesthetic Philosophy* (Edinburgh: Edinburgh University Press, 2013), 133.
- lxxiii Pater, 177, 87.
- lxxiv Pater, 87.
- lxxv Spencer, *First Principles*, 465.
- lxxvi Pater, 135.
- lxxvii Pater, 20.
- lxxviii Pater, 277.
- lxxix Spencer, *First Principles*, 470.
- lxxx Spencer, *First Principles*, 466.
- lxxxi Pater, 275.
- lxxxii Pater, 294.
- lxxxiii Gold, *ThermoPoetics*, 57, 61.
- lxxxiv Spencer, *First Principles*, 250.
- lxxxv Pater, 177.
- lxxxvi Pater, *Appreciations, with an Essay on Style* (London: Macmillan and Co, 1889), 55.
- lxxxvii Pater, 295, 275.
- lxxxviii Pater, *Studies in the History of the Renaissance* (Oxford: Oxford University Press, 2010), 119.
- lxxxix Kate Chopin, *The Awakening and Other Stories* (Oxford: Oxford University Press, 2008), 16.
- xc Chopin, 16.
- xcI Chopin, 60.
- xcii Chopin, 60.
- xciii Chopin, 84.
- xciv Chopin, 80, 81.
- xcv Chopin, 104.
- xcvi Chopin, 10.
- xcvii Gillian Brown, *Domestic Individualism: Imagining Self in Nineteenth-Century America* (Berkeley: University of California Press, 1992), 2.
- xcviii Brown, 7.

<sup>xcix</sup> Chopin, 89, 123.

<sup>c</sup> Regenia Gagnier, "The Law of Progress and the Ironies of Individualism," *New Literary History* 31, no. 2 (2000): 316, 321.

<sup>ci</sup> Chopin, 122.

<sup>cii</sup> Chopin, 28, 123.

<sup>ciii</sup> Herbert Spencer, "The Proper Sphere of Government," *Political Writings*, edited by John Offer (Cambridge: Cambridge University Press, 1994), 21.

<sup>civ</sup> Peter Ramos, "Unbearable Realism: Freedom, Ethics and Identity in 'The Awakening'," *College Literature* 37, No. 4 (2010), 147.

<sup>cv</sup> Chopin, 128.

<sup>cvi</sup> Chopin, 53.

<sup>cvii</sup> Arthur Schopenhauer, "The World as Will and idea," in *The Ethics of Suicide: Historical Sources*, ed. Margaret Pabst Battin (Oxford: Oxford University Press, 2015), 491.

<sup>cviii</sup> Schopenhauer, 493.

<sup>cix</sup> Carlos Gutiérrez-Jones, *Suicide and Contemporary Science Fiction* (Cambridge: Cambridge University Press, 2015), 1.

<sup>cx</sup> Gutiérrez-Jones, *Suicide*, 1.

<sup>cx</sup> Gluck, "Historical Myth," 355.

<sup>cxii</sup> Chopin, 128.