



Charles Darwin & The Moral Continuum

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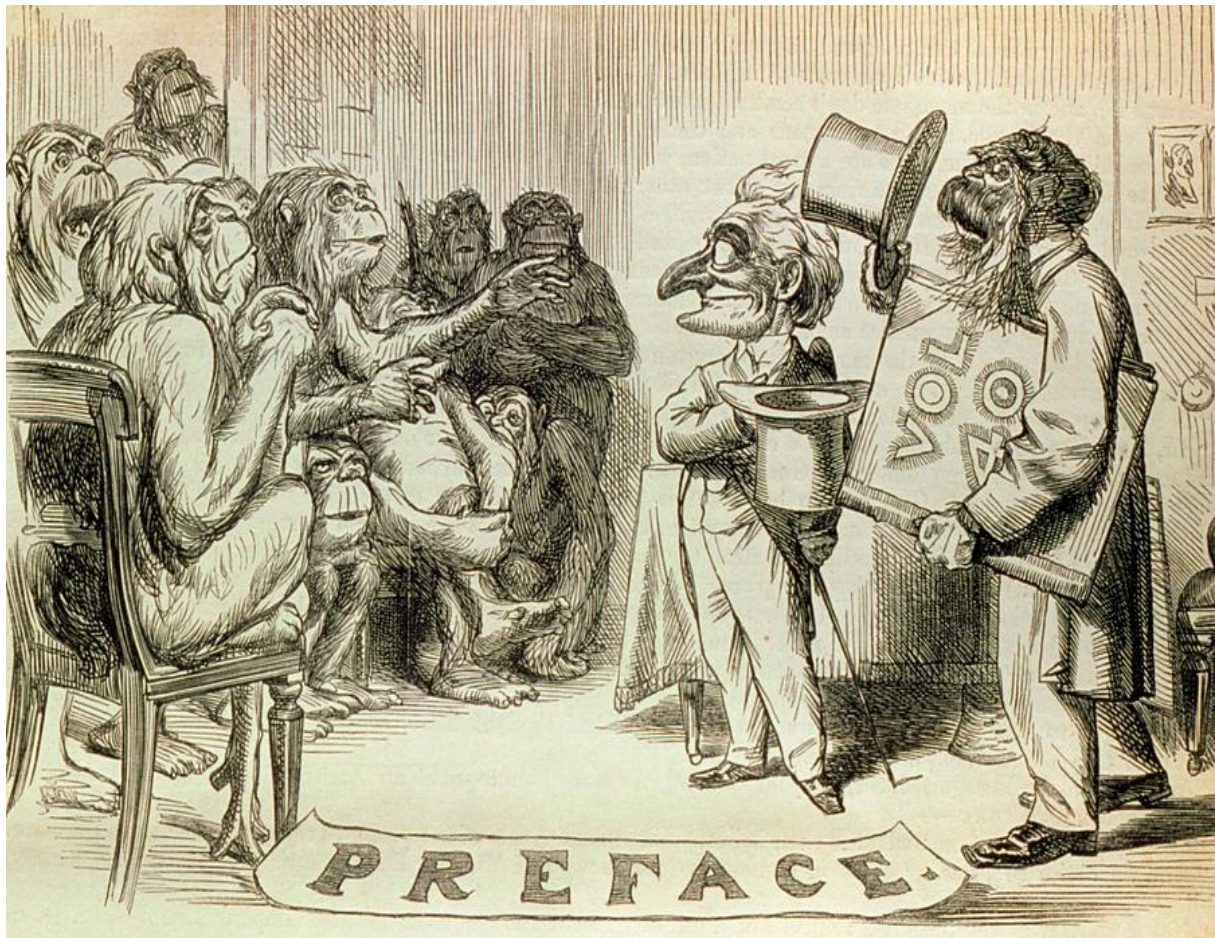
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Charles Darwin & The Moral Continuum



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Introduction

He who understands baboon would do more towards metaphysics than Locke.

Charles Darwin, *Notebook M*, 1838.¹

By far considered one of the greatest discoveries of the time, Charles Darwin's theory of evolution installed the laws of nature as the sole and only ruling power. Set in an increasingly ambivalent nineteenth century, Darwin's revelations rapidly grew into the new authority. However, stripped of any divine control, the nature Darwin described became the new enemy of human morality, strengthening once more the ongoing battle between old and new science. But perhaps, beyond the ground-breaking biological advancement his theory produced, his true liability lies precisely on the explanation given on morality. No doubt as the principle of natural selection dehumanized human beings. Humans were no longer the creation of a higher divine power, but rather the outcome of hazardous mechanical processes. Therefore, it is no wonder that his theory was accused, at first sight, of suppressing morality and advocating for a world free from values, where vice has no meaning. Nonetheless, his contemporaries were of two kinds: those who embraced the power of science heartily, and those who denied him credibility due to the epistemological dilemmas which ensued from his theory, especially as the ambivalent Victorian era gave way to a renewal of Christianity and moral values.

While Darwin is renowned and glorified for his discoveries, his legacy on morality is much more controversial. But conscious of the requirements of his society, Darwin did attempt to give an answer to the question of morality. Yet, his naturalistic approach of morality was rendered unsatisfactory, especially as it was quickly assimilated to radical and imperial discourses. However, recent scholars and writers have explored the concept of morality through Darwin's words from every angle and aspect, and concluded that not only did Darwin produce a viable evolutionary ethics, but also that it is one distinct from the commonly known Social Darwinism, which had been associated to it for long. For the last thirty years, evolutionary theorists and biologists have explored the implication of Darwin's theory for the study of ethics, and concluded, with confidence, that Darwinism can be entrusted to the teaching of ethics.²

As a continuity to my previous work on the existence of a possible alliance between Spiritualism and Darwinism, I must agree with the previous statement. Not only did my study prove a contingency to these two *a priori* conflicting domains, but it also revealed some hidden

¹ DARWIN, Charles, R., *Notebook M Metaphysics on Morals and Speculations on Expression*. Ed. Paul H. Barrett, Transcribed by Kees Rookmaaker. 1838, p. 84e.

² CARTWRIGHT, John, "Naturalising Ethics: The Implications of Darwinism for the Study of Moral Philosophy". *Science & Education*. Vol. 19, 2010, pp. 407-443, p. 407.

aspect of Darwinism associated to more socialistic, progressive and democratic positions. Therefore, in the second part of my study on nineteenth-century Darwinism, I will consider the potential of Darwin's theory to questionings of morality and ethics.

Before engaging into the core of the subject, it is important to cast a quick glance at the meaning of ethics and morality. Both terms refer to the sphere of moral values and principles. However, for some, these words take on different meanings and are not entirely equivalent. Morality is commonly defined as the set of judgements relating to good and evil. It refers to a set of values and principles which allows the differentiation of good from evil, the just from the unjust, virtue from vice. Moral values have the function of informing on the outcome of one's actions; it is supposed to guide and determine for us the ends, which should be good. The concept of good is the principle of evaluation, allowing one to decide the right goals that must be promoted. Good resides in an intended end, but also has an imperative, thus, morality has a teleological and deontological purpose.³ Morality pretends to stem from a universally shared experience. Conversely, ethics is not just a set of values or principles, but a rather reasoned reflection in hope of doing well. It embodies a practical dimension by questioning sets moral values and principles according to the context. It adapts the absolutism and universality of morality to reality and relativizes. The set of moral rules and conducts are bent to fit the situation they are displayed in. An ethical dilemma refers to two moral values or norms in conflict. Ethics is contingent and relative while morality aspires to establish constant law. Ethics considers a subjective dimension whereas morality has a universal reach. It is a thin line between the two, and both are dependent on each other. Both words are used to refer to Darwin's moral theory.

Throughout history, each culture defended its own conceptions of the principles and values which compose morality. And Darwin, like many others, tried to explain the origin of morality in humans and to assess truth. As it is commonly admitted that true scientific advancement needs objectivity, Darwin showed that although humans are consequences of an indifferent determinism, they are given rational faculty and morals. But, in his naturalistic materialism, he dismissed finalism. Yet, if morality has an end, a finality, which is good, then how can a materialistic nature produce morality? Patrick Tort speaks of a "reversible effect" ("l'effet réversible") which is inherent to the case of Darwinism. The mechanism of human evolution towards civilization weakened the influence of natural selection for the sake of civilization, hence, morality. Therefore, morality is the product of natural selection, but it outgrows the selective power of nature. Morality can be objectively considered as an

³ LE BIHAN, Christine, *Les grands problèmes de l'éthique*. Paris : Edition du Seuil, 1997, pp. 5-6.

evolutionary fact.⁴ Only from a materialistic viewpoint can one truly assert the true principles of morality, as it is now devoid of any religious or cultural dogmatism. Scientific axiological neutrality must at some point destroy any established truth to promote absolute vicissitude. In this way, the evolution towards civilization can be seen as a form of adaptative improvement. One might say that this reversible situation leans towards a natural contradiction when nature created humans who by natural processes end up negating nature itself. Therefore, Darwin inserts a double break in human history. The battle between “natural human” and “civilized human” is therefore strengthened by the laws of nature. There is a form of continuity in consequences. One can ask, did nature inadvertently create humans who would go beyond nature? Or is morality just a second natural mechanism of survival? With the appearance of social instincts, altruism, sympathy, the struggle for existence loses its domination.⁵ Evolutive power gives humans autonomy, if not liberty. Tort presses the idea that the emergence of morality is actually a “reversible continuity” (“continuité réversible”)⁶. The idea that natural selection could stop or could lose its influence to another form of natural process was shared by the co-discoverer of the theory of evolution. Alfred Russel Wallace explained his belief in human mono-polygenism by the fact that he believed in the existence of a second natural process that would be in action. While Wallace agreed that human evolution from ape illustrates the existence of a common ancestor, he also maintained that the difference in mental capacities among humans is the result of a secondary natural force which outgrew natural selection. Because Darwin believed in a “still higher destiny in the future” of humankind, and because the very essence of morality is directed towards an end, the association between perfectibility and Darwinism is not innocuous. To Darwin, natural selection is blind but powerful and inexorable. It elevated humans from humble beginnings to the “very summit of the organic scale”.⁷ In *The Origin of Species*, Darwin mentioned that “as natural selection works solely by and for the good of each being, all corporeal and mental endowments will tend to progress toward perfection”.⁸ Although Darwin seems to reject any form of intention in nature, this passage illustrates the difficulty to assess humanity’s place in nature, not only biologically but morally as well. However, nothing suggests the impossibility of an evolutionary progress without final causes. This evolution toward perfection is a *a posteriori* product of mechanical

⁴ TORT, Patrick, *Qu’est-ce que le matérialisme ?* Paris: Belin, 2016, p. 334.

⁵ *Ibid.* pp. 580-582.

⁶ *Ibid.* p. 584.

⁷ DARWIN, Charles, R., *The Descent of Man and Selection in Relation to Sex.* ed. 2nd. London: John Murray, 1882, p. 619.

⁸ DARWIN, Charles, R., *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life.* London: John Murray, 1859, p. 489.

processes. What can be called progress can be considered through its utility. If a species is regarded as best adapted in an ever-evolving nature, it is not a constant situation. Therefore, the progress can be measured by the small changes that are always fitting the environmental changing circumstances. This undirected progress is relative to the environment, the inherited traits and the species itself. Therefore, once an adaptive ability is judged advantageous, it induces that natural selection is not value-free. But perhaps, as Stephen Jay Gould believes, the idea of evolution as progress is to be rejected because of natural selection's incapacity to provide a basis for evolutionary progress.⁹ Yet, nothing indicates that morality, product of natural processes, could not. And the same can be argued for ethics, as this perfection dissolves on relativity. As morality contrasts humans from animals, the question of morality and ethics may be more fitting to explain this undirected perfectibility. After all, morality wants absolutism and universality, and what is better than Darwinism that proves a single ruler in a single world through a single scientific method. And because every environment is different to another, and nature is always evolving, so is morality, evolutionary ethics is not contradictory to Darwinism. Especially, as many argue in favour of a secondary process which could well prove the possibility of evolutionary progress. Unless, of course, there are hidden aspects of Darwinism which may enlighten the question of progress and final causes. However, it is crucial to remember that Darwin is not the first to admit the possibility of an ethical materialistic world.

Indeed, many philosophers, thinkers, and social scientists were materialists. It did not refrain them from differentiating virtue from vice. On the contrary, to them, as mentioned earlier, the true way to attain truth is when humans are freed from dogmas. One concept that agrees with Darwinian evolutionary ethics lies in the essence of morality itself. Morality, by some, is seen as a social hoax which goal is to subject society into a standard model to better control it. While this part does not really concern us, the next part might. This idea of a social subterfuge suggests that moral laws turn liberty into an illusion and that at the end of the day, personal interest is what fuels the ethical establishments. Moral duty is therefore reduced to simple constraint. Being moral has a utility, it is a social contract, a calculation, nurtured by the fear of shame and that of death. To better survive, humans trade part of their liberty and are constrained to act morally, and in exchange they are given protection by the State, the government, or the tribal chief. Moral laws, therefore, express a relationship based on convenience. There is no idealization, no transcendent power or ahistorical principle. It is a situation which is answered by facts in order to assure order. If morality is deduced from laws

⁹ LI, Jianhui, "Evolutionary Progress: Stephen Jay Gould's Rejection and Its Critique". *Philosophy Study*. Beijing Normal University: Vol. 9, N°, 2019, pp. 293-309, p. 306.

of nature of humans, it can neutralize the devastating effects of their own passions and promote social harmony.¹⁰ This conception of morality can be easily seen in that of Darwin's. By investigating social animals, such as hive-bees which form a strong social structure, Darwin proved that, in nature, some species find different ways to adapt and survive.¹¹ And with a set of rules that had come along, those species instinctively understood that they are stronger together to fight the harsh natural selection. In *The Descent of Man*, Darwin proved morality through the ideas such as altruism, sympathy but also egoism, fear of shame, memory, imagination; one might say that humans evolved into civilization and morality to better fight for survival. Humans understood, like hive-bees, that it might be better to have a set of rules to follow in exchange for a better way to survive. Then, humans, with morality, strove to go beyond natural selection, and in order to survive, found in moral laws a solution. Therefore, evolutionary ethics is not illusionary or doomed to answer radical movements, but rather, can be remedied from the ills bestowed upon it, once careful and untainted consideration is given. Darwinism may have been an accommodative vehicle for Social Darwinism, but it is because Darwin showed the existence of morality in nature that it came to be. But as it is now proved that Darwinism differed greatly from Social Darwinism, this remedied situation opens evolutionary ethics to viable outcomes. If everything is to be explained through the concept of survival, there is no longer any need to question the value of moral values. Someone who acts morally, who does good, is someone who found the best way to survive. It might look a lot like Social Darwinism discourses, but it is actually not. This is where Darwin's altruism comes into action; moral values are meant to help people evolve, and not divide them. Establishing morality in nature ends the contingency on moral values as the theory of evolution pretends, with its scientific support, to hold a universal and absolute truth based on the sole reign of nature. The laws of morality are redirected to each human's hand. Any human is capable of choosing to act for the benefit of survival. What is good, is actually the best way to survive. Humans have morality to survive, to better regulate the natural passion and help each other.

Nature is indifferent to human welfare, but nature gives humans ways to adapt themselves through intelligence and moral values. And those moral values should be put into motion. According to Robert J. Richards, the best way to justify and normalize evolutionary ethics in humans as Darwin believes is through the fact that altruism is part of human constitution. It is an inherent character, therefore "if you want to be true to your human nature—and you do (since that is the way you are evolutionarily constituted) – then you ought to act

¹⁰ *Op.cit.* LE BIHAN, pp. 25-32.

¹¹ *Op.cit.* DARWIN, *The Descent of Man and Selection in Relation to Sex*, p. 100.

altruistically”.¹² Human morality looks like a natural imperative, and humans’ given altruism or selfishness does not necessarily imply that they are to be taken for granted, but that they are to be considered through careful deliberation and judged accordingly.

Although I will inquire on the matter of evolutionary ethics, my main focus in this study is not to prove the existence of a sustainable evolutionary ethics, given that it has already been largely demonstrated in recent years; but in the light of such re-discoveries, to consider Darwin’s evolutionary ethics as a continuity to the general purview of ethics. My project is to argue how Darwin’s theory of morality survives and correlates the laws of human morality; and to hopefully show that this nineteenth century’s great epistemological break does in fact reflect, just like the theory did in science, a long history of ethical debates. Therefore, not only can it be considered as an ethical theory but, proving that with sufficient scientific evidence, the existence of morality also had a greater influence than it was thought it had. As I have mentioned previously, Darwin was not the first to defend a materialistic morality, but the scientific weight that accompanied his theory allowed him to settle on a true universal, absolute, and continuous morality.

To support my study, first and foremost, I will focus on Darwin’s own words. Beyond the shadows of his 1859 *The Origin of Species* and 1871 *The Descent of Man* lie a various number of other published and unpublished works which represent a complete picture of the great message that he communicated in order to free the human race from the swamp of darkness and dogmatism, and open them to the illuminating science. Darwin’s contemplations on morality did not arise from his discovery and elaboration of the theory of evolution. On the contrary, Darwin’s ideas on morality are the result of a long process which can be pointed back to 1838.¹³ Indeed, it is from 1838 that Darwin started to consider, in his personal notebooks, humans as just another animal species. However, many other scholars believe that Darwin’s ideas may have started even before 1838. Therefore, I will examine his notebooks, letters, journals and “old and useless notes” in order to frame his ethical reflections.¹⁴ Moreover, as my objective is to link the strong continuity in Darwin’s ethical thoughts to other theorists and thinkers, his predecessors and his contemporaries, the range of primary sources will be filled accordingly. And as my study is grounded in the nineteenth century, primary sources of the

¹² RICHARDS, Robert, J., “Darwin’s Evolutionary Ethics: The Empirical and Normative Justifications”. *Darwin in the Twenty-first Century: Nature, Humanity, and God*. Ed. Phillip Sloan. University of Notre Dame Press, 2015, pp. 182-200, p. 198.

¹³ CHARMETANT, Eric, “Darwin and Ethics: The History of an Early Encounter”. *Revista Portuguesa de Filosofia*. Vol. 66, N°3, 2010, pp. 539-561, p. 540.

¹⁴ DARWIN, Charles, R., *Old & Useless Notes about the Moral Sense & some Metaphysical Points about the Years 1837 & Earlier*. Ed. Paul H. Barrett, transcribed by Kees Rookmaaker. 1838-1840.

whole period will be under scrutiny. Furthermore, as Darwin's influence reached almost every domain, and as his considerations on morality allowed him to cross path with ethics, I will undertake this study by associating multiple disciplines such as philosophy, history, biology, anthropology.

An authentic and comprehensive image of Darwin's views on morality is only attainable through careful study and profound analysis of both the background and issues of such subjects, that are Darwin, Darwinism, ethics and evolutionary ethics. In view of this, the first chapter will be devoted to his approach and the analogies that can be found between the nature and development of his moral theory and of those who might have been an influence. I will focus on assumptions prior to the elaboration of the theory as well as the circumstances and environment that surrounded Darwin during the process. It is necessary to outline the history that preceded Darwin's theory to facilitate the understanding of emergent circumstances when the theory of evolution appeared. This part will also examine his genesis of morality, and the relation between progress and traditions within his theory.

Then, in a second chapter, I will focus on the reaction of his contemporaries. The aim is to consider the response he gained and especially the alternative use of Darwinism in its ethical scope. This part will examine how, by admitting a continuum, all the existing dichotomies in human affairs may be united under nature's laws. I will also review the problem of teleology in Darwinian ethics. The reason behind the choice of this part is to evaluate the significance of moral freedom and deliberation in Darwin's vision of morality, and to consider Darwin's scientific answers to transcendental concepts.

Finally, I will widen the scope of his ethical contemplations considering animal and environmental ethics. If humans are animals above all, and as humans and animals share common instincts, shouldn't ethics be extended to animals? By admitting an evolutionary ethics, Darwin dehumanized humans but in the same way humanized animals, therefore, should there be laws to protect animals? In the same way, if nature is to be considered as the home of humans, shouldn't it be considered as worthy of protection? This will enable me to shed some light on the practical and socialist dimension of his evolutionary ethics and to illustrate its outcome and utility to less visible domains. But also, to think on the true meaning of a secular ethics and how can it therefore surpass the inevitable social alienation that had been hitherto promoted by Social Darwinism or, is it a form of emancipation, which could therefore show that even though nature is indifferent, it gives humans the tools to improve and progress?

I. Darwin, Naturalist & Ethical Theorist

In the course of his researches, Darwin explored various features of the natural realm, yet none struck him as much as mankind and their metaphysical senses. For millennia, this tortuous venture had tormented the brightest of minds, and while incalculable numbers of theories flourished, none sufficed to appease the thirst for an answer, that is, until the sun of Darwinism rose. While it took Darwin twenty years to formulate his veracious theory of evolution, his considerations on human morality devoured more than thirty years of his life. As a means to fully grasp his vision of the human mind as well as to appreciate his position within the scope of moral history, this chapter will be devoted to the path that led him to his conclusions. A first section will inquire on his early ethical reflections among which subtle images of his future theory are already drawn. A second section will revolve around his moral theory for it will be crucial to understand this study. A third section will aim to consider his views in light of conservative concepts since it may emphasize this progressive theory's reach.

Before engaging further in the core of the subject, I will begin by clarifying the confusion which has been established upon Darwin's explanation of human evolution. To that end, it is necessary to evoke the convergence of several sets of data. The historical and ideological context of the Victorian era which is, no doubt, accountable for Darwin's eleven years of silence, that is from the publication of *The Origin of Species* (1859) to that of *The Descent of Man* (1871), paved the way for a series of premature and mistaken explanations of his selective theory. As a result, not only had Darwin's name been associated to unfortunate Social Darwinism, but more importantly, by the time *The Descent* was published, everyone thought they already knew its content long before it appeared. Therefore, the fundamental theses of *The Descent* had hitherto been made superfluous by intellectuals who considered themselves sufficiently informed by the anchored global assumptions made on the theory of evolution.¹⁵

The Victorian era was a period of spectacular and continuous growth and prosperity. It was celebrated for its considerable progress, namely the development of industry, machinery, holdings and communicative means, the establishment of free trade, the prosperous performances in trade and commerce, the significant inclination for freedom, its political democracy and representativeness, the superiority of colonial expansion as well as its well-remembered civilizing mission and the domination of the English "race" on the world. Nonetheless, the era is also characterized by multiple social evils, such as poverty, social and

¹⁵ *Op.cit.* TORT. pp. 345-347, 661-665.

racial injustice, unworthy working conditions, lack of hygiene, inferior female condition, the uncontrollable rise of machines, the deepening social gap, the mortification of non-British cultures and the dependence on slave system trades. This dualist society on the verge of many crises created the need among the ruling classes for a biologically sanctioned society which would enable them to maintain and comfort their convictions. Rooting their ideological self-justification in the name of nature and its laws could be the solution to the ills of the society. This is precisely what Herbert Spencer (1820-1903) and Social Darwinism provided.

The monumental oppositions Darwin faced to impose his theory alarmed him on the difficulty to challenge established forces. However, Darwin's arguments were of such force that they measured to religious and conservative ideologies. The alternative he offered added to the already existing social crisis, especially as these aforementioned ideologies were already weakened in their positions. Therefore, in more progressive circles, the urgency of an explanation on the origin of humans pushed many to take over Darwin's duties. It was then that Spencer concretized his system and Francis Galton (1822-1911) his eugenic doctrine, with one common theme: the necessary elimination of the less fit. Darwin's cautionary postponement of his explanation on human descent might have been more harmful than he had anticipated. The hasty anticipation of an anthropological theory by some allowed premature theory to seize and invade Darwin's domain so much as his own silence was taken for granted. His explanation became accessory in favour of inspired alternative theories which best fitted his society's expectations. The essential discourse of *The Descent* was cancelled and his conclusions on humans and civilization were ignored. This is why his social ethics, founded upon the assistance of the most deprived, was misunderstood in its entirety. Although far from being unanimously accepted, the overall coherence of his natural theory to social discourses weighed heavily on Darwin so that he had to produce an answer on the matter of humans, so much that he even despaired, allowing others to take his place.

The punctual use of the central concept of Darwinism within a global system by Spencer victimized the very theory it promoted, and indubitably caused the lack of comprehension of Darwin's anthropology. Even though deeply Lamarckian in his evolutionary biology, Spencer made full use of Darwinism where Darwin had cautiously refused to express his thoughts: on humans and their civilization. By borrowing the core elements of the theory of evolution, Spencer was able to naturalize his society and advance his liberal fundamental conception of social competition. Along with Spencer's synthetic ideology of progress and his retranslation of "survival for the fittest", Galton, using the same method, elaborated his artificial selection. The need for the scientific circles of a global explanatory theory of natural selection absolved

many to consider the logics in Darwin's steps and they preferred to adopt the hasty adaptations made by tertiaries in order to put an end to the ongoing battle with religion and to finally open the road for a complete secularization of the natural world and its historical components.

However, the cautionary delay imposed by Darwin may not have entirely been ensued by the institutional resistance. Indeed, by avoiding humans in *The Origin*, although he promised that "light will be thrown on the origin of man and his theory", Darwin may have hoped for a better reception of his explanation on the transmutation of species through natural selection.¹⁶ In a letter to Alfred Russel Wallace, Darwin mentioned that he had been working on an essay on humans. However, because of the weighty and critical importance of the subject of humans, he had later offered Wallace to undertake the work and thought of giving him his prized notes on the matter, given that Wallace was already working on his theory on humans in his 1864 *The Origin of Human Race and the Antiquity of Man Deduced from the Theory of "Natural selection"*.¹⁷ But, as Wallace started to defect by speaking of an intelligent design in nature and perhaps because of the so-called social Darwinism, Darwin finally launched his second revolution by presenting his counterarguments in *The Descent* making his very own version of the origin of humans. Darwin did not speak yet of the question of morality or other related human intellectual abilities but, rather, he focused on an upcoming explanation on sexual dimorphism and the origin of human races. In light of heavy criticism from the scientific circles concerning the lack of information on human matters in *The Origin*, which was ultimately discrediting the whole theory, Darwin was forced to provide his position on the matter of human origin, morality and intelligence.

As a result of his tardiness, his theory of human evolution had been misrepresented and the very idea of a Darwinian ethics had been abandoned for far too long. Now that this misunderstood aspect of his theory has been clarified, it is crucial to understand that his explanation was not at all spontaneous or hasty, but the result of a long careful reflection which can find its place within the history of moral theories.

¹⁶ *Op.cit.* DARWIN, *The Origin of Species*. p. 488.

¹⁷ MARCHANT, James, *Alfred Russel Wallace: Letters and Reminiscences*. London: Cassel and Company, Ltd, Vol 1, 1916, p. 154. Letter from Darwin to Wallace on the 28th of May 1864.

1. Darwin, the Moralist

In order to argue in favour of a strong continuity in Darwin's moral thoughts as well as in his theory to broader moral theories, this part will examine his unpublished works as it details his early ethical contemplations which, in turn, will offer a better understanding of his published books. I will begin by mentioning the figures who are most likely to have guided Darwin's reflections on the matter of morality. Then, I will address some of his moral positions. Although most of the notes made by Darwin are believed to be his own thoughts, it can be sometimes confusing to decipher whether he is re-stating the ideas of others. Most of the notes he made are comments or reassertions of broader moral theories and are usually accompanied by footnotes of references. In order to clarify his position and to produce an accurate statement of Darwin's earlier moral reflexions, I will partly follow Robert J. Richards's *Darwin and the Emergence of Evolutionary Theories of Mind and Behavior* (1987) and Eric Charmetant's "Darwin and Ethics: The History of an Early Encounter" (2012).

It is commonly believed that early childhood education moulds one's mind. In the case of Darwin, one of the first ethically-inclined principles that he assimilated was his family's strong position against slavery. Among many values held by the Darwin and Wedgewood families, their commitment to the abolition of slavery formed in young Darwin's mind a sense of right and wrong.¹⁸ His upbringing sensitized him so much to the moral environment that surrounded him that his countless observations recorded in his *Journal of Researches*, the journal he wrote on board the *Beagle*, are full of accounts of the customs and moral behaviour of foreign human inhabitants. He often argued in favour of the enslaved tribes and says to have been profoundly marked by the "heart-sickening" sight of slaughtered tribes and harsh slave punishments. He was particularly effected during his visit in Brazil in 1839: "I thank God I shall never again visit a slave country. To this day if I hear a distant scream, it recalls with painful vividness my feelings when [...] I heard the most pitiable moans [...] from a tortured slave".¹⁹ Testifying to the horrors and brutality of the Gauchos in Argentina, Darwin, in 1833, concludes that although the Gauchos were superior in view of civilization, they remained inferior in their morality: "The country will be in the hand of white Gaucho savages instead of

¹⁸ Darwin's grandfather Erasmus Darwin was a close friend of businessman Josiah Wedgewood. Erasmus's son, Robert, married one of Josiah's daughters. The alliance resulted in the birth of Charles Darwin who himself married one of his maternal cousins, Emma Wedgewood.

¹⁹ DARWIN, Charles, R., *Journal of Researches into the Natural History and Geology of the Country Visited during the Voyages of H.M.S. Beagle round the world, under the Command of Capt. Fitz Roy, R. A.* ed. 2. London: John Murray, 1845, p. 499. The journal was initially titled *Voyage of the Beagle*. Both names refer to the same book.

copper-coloured Indians. The former being a little superior in civilization, as they are inferior in every moral virtue”.²⁰ However, Darwin did not clarify whose morality theirs is inferior to. He did try to record the events as neutrally as possible as he did not refrain from speaking of the Indians’ immorality.²¹ But he also mentioned throughout his records their courage and their sense of right and wrong. The genocidal war against American Indians made Darwin question the relevance of Christianity as immorality still existed in Christianized regions. He spoke of the Gauchos’ “inhuman” acts:

Every one here is fully convinced that this is the most just war because it is against barbarians. Who would believe in this age, in a Christian civilized country, that such atrocities were committed? The children of the Indians are saved, to be sold or given away as servants, or rather slaves, for as long a time as the owners can deceive them; but I believe in this respect there is little to complain of.²²

There could be no progress in the extermination of one race by another. To him, “a land of slavery” equals “moral debasement”.²³ The relationship between morality and civilization is still a hazy one in Darwin’s mind as for instance, in May 1834, he asserted that the Fuegians were “half civilised, and proportionally demoralised”.²⁴ Colonists are considered as civilized humans and yet they display “moral debasement” from their practice of slavery. From December 1831 to October 1836, Darwin’s voyage across the world enabled him to witness many distinct societies with their very own moral code. He understood that all human tribes, diverse as they may be, had a common sense of right and wrong. A point which revealed itself later in his theory. Darwin’s materialism, or rather his naturalistic approach to humans, is already discernible in the way he described himself or the people he met. He depicted himself as a “sort of Christian” yet compared humans to animals.²⁵ He observed the Gauchos’ meat regimen and noted that they were “like other carnivorous animals, [and] can abstain long from food”.²⁶ Darwin at this point was not entirely evolutionist, yet the way he described his surroundings already hinted at his future religious negation.

Although Darwin made many ethical comments during his voyage, he took a real interest into the question of morality by 1838. Indeed, in Darwin’s *Notebook C*, he wrote of his intention to read several philosophical and ethical books among which figure those of economist Adam Smith (1723-1790), Scottish philosophers David Hume (1711-1776) and

²⁰ DARWIN, Charles, R., *Charles Darwin’s Beagle Diary*. Ed. Richard Darwin Keynes. Cambridge University Press, 1988, p. 181.

²¹ *Op.cit.* DARWIN, *Journal of Researches*. p. 65.

²² *Ibid.* p. 102.

²³ *Ibid.* p. 498.

²⁴ *Ibid.* p. 232.

²⁵ *Ibid.* p. 263.

²⁶ *Ibid.* p. 117.

Dugald Stewart (1753-1828).²⁷ Though Darwin's inquiries into the moral sphere led him to cross path with several renowned ethical theorists, four publications are considered to have had a real effect on his mind; William Paley's *Moral and Political Philosophy* (1785), Harriet Martineau's *How to Observe: Manners and Morals* (1838), Sir James Mackintosh's *Dissertation on the Progress of Ethical Philosophy* (1830) and John Abercrombie's *Inquiries Concerning the Intellectual Powers and the investigation of truth* (1830). The following argument will assess some of the ideas Darwin discussed in relation to these theorists.

In 1838, his brother introduced him to novelist, Unitarian and radical social critic Harriet Martineau. She was the friend of Fanny Mackintosh, the wife of Darwin's close cousin Hensleigh Wedgewood. After meeting with the very opiniated and intelligent Martineau, Darwin, intrigued, took upon her writings. To Martineau, there is no such thing as a universal moral sense. According to her, the notions of right and wrong vary depending on the time and place but a "universal feeling about right and wrong" remains:

The traveller having satisfied himself that there are some universal feelings about right and wrong, and that in consequence some parts of human conduct are guided by general rules, must next give his attention to modes of conduct, which seem to him good or bad, prevalent in a nation, or district, or society of small limits. His first general principle is, that the law of nature is the only one by which mankind at large can be judged. His second must be, that every prevalent virtue or vice is the result of the particular circumstances amidst which the society exists.²⁸

To answer Martineau's idea of an inexistent universal moral sense, Darwin, in his private *Notebook M* on "Metaphysics on Morals and Speculations on Expression", argues that "the opposite has been shown", referring to Mackintosh.²⁹ Darwin compares the variability of instincts seen in dogs to human conscience to prove that the common moral sense is actually humans' instinctive social nature. Variabilities of instincts displayed in different breeds of dogs do not necessarily convey that they are not innate. In the same way, the various moral codes that exist in human societies do not imply that the sense of morality cannot be innate and therefore, an inherent instinctive character to humankind. The differences in moral codes are the "effects of education" and other specific social structures.³⁰ Throughout all of Darwin's speculations and researches on morals, he argues that moral sense should be regarded as an instinct. This precise point highly defended by Darwin led him to question William Paley's explanation of human nature. Martineau's influence over Darwin had not been as noticeable as

²⁷ DARWIN, Charles, R., *Notebook C. Transmutation of Species*. Transcribed by Kees Rookmaaker. 1838, p. 268.

²⁸ MARTINEAU, Harriet, *How to Observe Morals and Manners*. London: Charles Knight and co, 1838, p. 27.

²⁹ *Op.cit.* DARWIN, *Notebook M*. p. 75.

³⁰ *Ibid.* p. 77.

Paley's or Mackintosh's since part of the relation he had with Martineau was more social, given the involvement of their families.

Like his opinion on Martineau's writings, Darwin disagreed with Paley's negation of moral instincts. However, Darwin was already accustomed with Paley's views as he had studied his writings during his years at Cambridge and as he witnessed first-hand some of Paley's most affluent critics: Adam Sedgwick (1785-1873) and William Whewell (1794-1866).³¹ Although Darwin studied two of Paley's books, the second, *The Principle of Moral and Political Philosophy* (1811), was the one which had an influence on Darwin's own moral philosophy. Paley supported theological Utilitarianism and firmly rejected the idea of an innate moral sense:

Aristotle lays down, as fundamental and self-evident maxim, that nature intended barbarians to be slaves; and proceeds to deduce from this maxim a train of conclusions, calculated to justify the policy which then prevailed. [...] a system of morality, built upon instincts, will only find out reasons and excuses for opinions and practices already established – will seldom correct or reform either.³²

If morality is instinctive, any action, good or bad, could be deemed natural, and therefore, unquestionable. Moral sense would be a human creation through imitation and childhood education. Paley believes that the righteousness of an action can be judged according to its utility in relation with happiness and obedience to the will of God.³³ Paley asserts that “‘whatever is expedient is right’ [...] but then it must be expedient on the whole, at the long run, in all its effects collateral and remote, as well as those which are immediate and direct”.³⁴ In this respect, Darwin disagrees as, for him, an action should not be judged on its future consequences but should rather be examined through the past. In his *Notebook M*, Darwin answers Paley on the topic of the “descent of man” and “moral sense”:

Those actions which have been found necessary for long generation, (as friendship to fellow animals) are those which are good & consequently give pleasure, & not as Paley rule is those that on long run *will* do good.– alter *will* in all cases to *have* & *origin* as well as *rule* will be given.³⁵

Using Auguste Comte's ideas and principle of causation, having read David Brewster's review of Comte's *Cours de Philosophie Positive* in the July 1838 issues of the *Edinburg Review*, he advances that these expedient actions, which had been deemed useful in the past, were necessary to preserve the species, and in time, they had been considered morally good.³⁶ What

³¹ *Op.cit.* CHARMETANT. p. 545.

³² PALEY, William, *The Principles of Moral and Political Philosophy*. 19th ed. Vol. I. London: George Taylor, 1811, p. 19.

³³ *Op.cit.* CHARMETANT. pp. 545-546.

³⁴ *Op.cit.* PALEY. p. 80.

³⁵ *Op.cit.* DARWIN. *Notebook M*. p. 132e.

³⁶ Comte impacted Darwin's manner of conceiving science, notably on predictive power of scientific hypotheses and the law of the three stages (metaphysical and theological ideas should be excluded from positive science).

was once biologically good is now morally good. Paley's views suggest that humans' moral sense is motivated by anticipation, and hence, draws its origin from selfishness. A point to which Darwin disagrees. And although necessary, Darwin proves later, in *The Descent*, that selfishness is only a small part of the origin of moral sense. As Robert Richards notes, Darwin had begun the process of biologizing Martineau and Paley's ethical systems, but it is with James Mackintosh that "he discovered a moral system with which he was in fundamental sympathy" as he "set out to give, in natural-historical and evolutionary terms, an interpretation of the faculties he found described in Mackintosh's Dissertation".³⁷ The idea of Darwin biologizing an otherwise non-biological theory is not unheard of. Patrick Tort, insisting on the differentiation between an epistemological and an ideological interpretation of Darwin's theory, advances that it was Darwin who gave to Malthus's theories a pertinent applicational field, overlapping Malthus's own purview.³⁸ A statement which will also be used in reference to Spencer's wrongful naturalization, Darwinization, of his society. Where Paley's words guided Darwin's to the elaboration of *The Origin of Species* and supported the framework of his education, Mackintosh seems to have been the central pillar of his theory of human mind.

James Mackintosh (1765-1832) was a Scottish jurist, Whig politician and historian. He also worked as a journalist, professor and philosopher. He was asked to finish Scottish philosopher Dugald Stewart's article on the history of metaphysics, moral philosophy and political philosophy for the introductory volume of the 7th edition of the *Encyclopaedia Britannica*.³⁹ An offprint of his work was later published with a foreword by moral philosopher William Whewell. Before his departure on the *Beagle*, Darwin was introduced to Mackintosh through the Wedgewood family, as he was with Martineau. By the time Darwin took a true interest in the concepts of morality, Mackintosh had become a major reference in his notes. In his *Autobiography*, he remembered his 1827 conversation with Mackintosh and believed him to be "the best converser on grave subjects to whom I have ever listened". Darwin "listened with much interest to everything he said" for he thought he "was ignorant as a pig about the subject of history, politicks and moral philosophy".⁴⁰

Mackintosh, in his *Dissertation* (1830), argues against Thomas Hobbes (1588-1679) as he disagrees that benevolent affections are disguised selfishness, placing himself also against

³⁷ RICHARDS, Robert, J., *Darwin and the Emergence of Evolutionary Theories of Mind and Behavior*. Chicago: University of Chicago Press, 1987, p. 116.

³⁸ *Op.cit.* TORT. p. 871.

³⁹ *Op.cit.* CHARMETANT. p. 547.

⁴⁰ DARWIN, Charles, R., *The Autobiography of Charles Darwin 1809-1882*. Ed. Nora Barlow. London: Collins, 1958, p. 55.

Paley's account of human selfishness.⁴¹ To him, "Hobbes enforces odious falsehood".⁴² To Mackintosh, external circumstances, although crucial to educate the moral faculty, could not be the unique cause that linked acts to feelings of obligation. He writes in his *Dissertation* that

[t]he truth seems to be, that the moral sentiments in their mature state, are a class of *feelings which have no other object but the mental dispositions leading to voluntary action, and the voluntary actions which flow from these dispositions*. We are pleased with some dispositions and actions, and displeased with others, in ourselves and our fellows. We desire to cultivate the dispositions, and to perform the actions, which we contemplate with satisfaction. These objects, like all those of human appetite or desire, are sought for their own sake. The peculiarity of these desires is, that their gratification *requires the use of no means*.⁴³

To Mackintosh, moral feelings work on the level of *will*. As both *will* and moral feelings are internal agencies, "no external circumstance affects them".⁴⁴ Mackintosh draws most of his arguments by agreeing at some level to the ethical principles of Joseph Butler (1692-1752). He also discusses the ideas of Anthony Ashley-Cooper (1671-1713), the third earl of Shaftesbury. This is important as it allowed Darwin to have a broader insight into moral philosophy. To Mackintosh, theoretical reason – reason based on abstract use of rationality – cannot account for moral laws: "The practical reason cannot be conceived without these laws; therefore they are *inherent*. [...] The performance of duty not the pursuit of happiness, in this system the chief end of man".⁴⁵ For instance, the disutility of murder is actually understood through a secondary rational process, as the repugnance for evil acts is first instinctive. The utility of an action is used as a basic criterion for measuring and not as an immediate response or motive to any action.⁴⁶ According to Charmetant, Mackintosh tried to prove a convergence between moral sense and the criterion of utility. This proposal of a link between moral sense and happiness is taken by Darwin in 1838:

Two classes of moralists: one says our rule of life is what will produce the greatest happiness.— The other says we have a moral sense.— but my view unites both & show them to be almost identical. What had produced the greatest good or rather what was necessary for good at all is the instinctive moral sense.⁴⁷

The best interpretation of this proposal is that Darwin speaks of the moral schools of Utilitarianism and Intuitionists and validates the co-existence of the two, as to Darwin moral sense is innate to humans and aims at the greatest good for humans.

⁴¹ *Op.cit.* CHARMETANT. p. 548.

⁴² MACKINTOSH, James, *Dissertation on the Progress of Ethical Philosophy Chiefly during the Seventeenth and Eighteenth Centuries*. 3rd ed, Preface by William Whewell. Edinburgh: Adam and Charles Black, 1862, p. 157. More will be discussed on Hobbes in the following sections, particularly on the question of selfishness and natural law. *Infra*. p. 42. More will be discussed Hobbes and the influence on his opponents on Darwin's mind.

⁴³ *Ibid.* p. 152.

⁴⁴ *Ibid.* pp. 153-154.

⁴⁵ *Ibid.* p. 349.

⁴⁶ *Op.cit.* RICHARDS, *Darwin and the Emergence of Evolutionary Theories of Mind and Behavior*. p. 116.

⁴⁷ *Op.cit.* DARWIN, *Old & Useless Notes*. p. 30.

Throughout his *Old and Useless Notes*, Darwin devotes over almost fifteen pages only to Mackintosh's concepts while in the rest of his notebooks, he heavily refers to ideas of Mackintosh he believes are right. And these ideas are later disseminated in his theory of moral sense. However, Darwin proves his individual thought process as he would sometimes disagree with Mackintosh's ideas, especially on Mackintosh's insistence on the importance of *will*. Indeed, he mentions that Mackintosh's idea of "contact with the will" is "unintelligible" to him.⁴⁸ At some point Darwin believes Mackintosh retreated to theology and did not inquire further. Nonetheless, there is little doubt that Mackintosh had a tremendous influence on Darwin's ethical thoughts, although it appears that Darwin was always convinced of moral sense as an instinct, and as Mackintosh agreed with such a view, he found grounds in him to forge his theory.

By stating that moral sense is instinctive, thus derived from a biological process, Darwin knew that there must be a natural law presiding over it all. In an attempt to merge moral freedom and biological freedom, noting that at this point it was just speculative, Darwin endeavours, in his *Notebook M*, to prove that freewill and chance are "synonymous": "Shake then thousand grains of sand together & one will be uppermost:— so in thoughts, one will rise according to law". He starts to wonder whether freewill or at least the idea of freewill could have evolved as he declares that "freewill is to mind, what chance is to matter".⁴⁹ In September 1838, while discussing freewill, Darwin reviews, in his *Old and Useless Notes*, Abercrombie's writings:

Every action whatever is the effect of a motive [...] A man may put himself in the way of contingencies.— but his desire to do arise from motive.— & his knowledge that it is good for him effect of education & mental capacity [...] one well feels how many actions are not determined by what is called free will [...] The general delusion about free will obvious.— because man has power of action, & he seldom analyse his motive (originally mostly INSTINCTIVE, & therefore now great effort of reason to discover them: this is important explanation) he thinks they have none.⁵⁰

Darwin realizes that if moral sense is instinctive and thus derived from some unknown biological law, human freewill collides with the fact that they are determined by some natural law. Darwin pursues by examining the reasons why parents would seek to give their children the proper education. He already concludes that the habits which are acquired since childhood would later become instinctive. According to Richards, Darwin's proximity to Abercrombie's writings is due to the fact that he agreed with a passage from *Abercrombie's Inquiries Concerning the Intellectual Powers*, which he also read in 1838. Abercrombie explains how

⁴⁸ *Ibid.* p. 37.

⁴⁹ *Op.cit.* DARWIN, *Notebook M*. p. 31.

⁵⁰ *Op.cit.* DARWIN, *Old & Useless Notes*. p. 26.

moral laws can affect a person's judgement, and not freewill.⁵¹ As a result of this declaration, Darwin makes, on his copy of Abercrombie, the following annotations:

All this delusion of free will would necessary be from men feeling from power of action [...] What humility this view teaches. A man [three words illegible] with his state of desire (neither by themselves sufficient) effect of birth and other accidents. Yes but what determines his considerations? His own previous conduct-& what has determined that? & so on-Hereditary character & education & chance.⁵²

Hence, Darwin already understood the link between habits, moral instincts and moral laws, all being under a deterministic rule of nature. Darwin continued reflecting on the matter but was more focused on instincts rather than moral sense, at least at this point of his life. Yet, his originality lies in connecting moral sense to an instinct that had been beneficial in the past and which tends towards the greater happiness. He targeted more precisely the question of instincts in *the Sketches of Species Theory of 1842-1844*, in which he chose to illustrate how customs and expedient characters could be transmitted in the form of instincts.

It is important to note that by taking an interest in ethical theories, and through the words of Mackintosh and the others, Darwin had an insight into many other moral theories such as those of Anthony Ashley-Cooper, Joseph Butler, Francis Hutchinson (1694-1746), David Hartley (1705-1757), who ultimately allowed him to acquire enough knowledge on the matter to nourish his own theory. Nonetheless, Paley, Mackintosh, Abercrombie, Martineau, or even Malthus, for Darwin, became substantial matter whose content and meaning are judged and appreciated within the framework of the scientific theory. Darwin used concepts of philosophy, but the use was not philosophical. Darwin had made Mackintosh's words as a central pillar of his notes, owing to the fact that he mostly agreed with his idea of an instinctive moral sense. Yet, Darwin's anchored position on instincts might have somehow been inherited from his grandfather, Erasmus Darwin (1731-182), who I recall is considered as a sensationalist – those who in their quest to understand animal psychology, held the belief that human knowledge was drawn from the same resources available to animals, that is sensations.

Now that I have spoken of the major actors who influenced Darwin's thoughts, I will pay attention to some of his inquiries on morality which can be found in his *Old and Useless Notes*. The nucleus of Darwin's arguments was that moral sense is innate, that is instinctive. But he also addressed other aspects in relation to moral sense which ultimately resemble much of his theory of evolution. He questioned the impact of civilization on morality, linked the sense

⁵¹ *Op.cit.* RICHARD, *Darwin and The Emergence of Evolutionary Theories of Mind and Behavior*. p. 123.

⁵² DARWIN, Charles, R., annotation in his copy of ABERCROMBIE, John, *Inquiries concerning the Intellectual Powers and the Investigation of Truth*. 8TH ed. London: John Murray, 1838, pp. 202-203. Quoted from RICHARDS, *Darwin and the Emergence of Evolutionary Theories Mind and Behavior*, p. 123.

of beauty to moral instincts, and questioned the use of moral sense, while altogether strengthening the communal position of humans and animals.

As mentioned earlier, Darwin questioned the influence of religion on morality. To him, “belief” is “allied to instincts”⁵³. He speculates on the origin of sacrifices in so many different regions of the world, and deems this origin “curious” as, to him, there must be something wrong in doing such cruel acts.⁵⁴ In his *Journal of Researches*, even though he presses the fact that “morality and religion of the inhabitants are highly creditable” and that the works of missionaries are highly underestimated or rather under-evaluated – as the introduction of Christianity reduced many evils from these foreign lands, such as “human sacrifices, [...] the power of an idolatrous priesthood, [...] infanticide, [...] bloody wars, [...] dishonesty, intemperance and licentiousness”, – he still questions some of the methods applied to those who held a different religion.⁵⁵ Indeed, while visiting Mauritius Island, he saw Indian convicts banished from their native home, some for “murder and the worst crimes”, while others “for causes which can scarcely be considered as moral faults, such as for not obeying, from superstitious motives, the English laws”.⁵⁶ The question which tormented Darwin here is to what extent religious belief affects moral sense as, to him, beliefs and instincts are connected. A broader question in that case would be to understand the origin of immorality as belief originates from instincts. Darwin reflects several times on the question of criminality in his notebooks. To him, criminality was a disease and to explain this moral failure he declares that: “we ought to pity & assist & educate by putting contingencies in the way to aid motive power”.⁵⁷ Darwin claims that the solution is to help the “wrecked”:

One must view a wrecked man, like a sickly one– we cannot help loathing a diseased offensive object, so we view wickedness.– it would however be more proper to pity than to hate [...] Animals do attack the weak & sickly as we do the wicked [...] [I]t is right to punish criminals; but solely to deter others.⁵⁸

Though Darwin rarely spoke of criminality in his published work, urging people to help rather than despise is closely connected to his theory on sympathy. Darwin showed a penchant for humbler and socialistic views:

[It] should teach profound humility, one deserves no credit for anything. (yet one takes it for beauty & good temper), not ought one to blame others.– This view will not do harm, because no one can be really *fully* convinced of its truth except man who has thought very much, & he

⁵³ *Op.cit.* DARWIN, *Old & Useless Notes*. p. 11b.

⁵⁴ *Ibid.* p.12.

⁵⁵ *Op.cit.* DARWIN, *Journal of Researches*. p. 414.

⁵⁶ *Ibid.* p. 484.

⁵⁷ *Op.cit.* DARWIN, *Old & Useless Notes*, p. 25v.

⁵⁸ *Ibid.* p. 26.

will know his happiness lays in doing good & being perfect, & therefore will not be tempted, from knowing every thing he does is independent of himself to do harm.⁵⁹

Moreover, to explain the moral sense of right and wrong, Darwin inquired on the concept of beauty in art and the sense of sublimity. Aesthetics raises questions on what is right and wrong aesthetically. Therefore, it is intrinsically connected to moral sense. In his address on the question of taste and sublimity, Darwin discusses the ideas of moral theorist, Dugald Stewart. In a materialistic approach to the subject, Darwin explains the genesis of the sublime:

The literal meaning of Sublimity is height, & with the idea of ascension we associate something extraordinary & of great power.— [...] From the association of power &c &c with height, we often apply the term sublime, where there is no real *sublimity*. That the superiority & “inward glorying, which height by its accompanying & associated sensations so often gives, when excited by other means, as moral excellence, brings to our recollection the original cause of these feelings & thus we apply to them the metaphysical term sublime.”⁶⁰

Humans have learned, unlike animals, to transform glorifying and prideful sensations into pleasure. It is a point in which animals and humans are distinguished. But, in his view, it is just another instinctive moral capacity gained through “a complicated series of associations that we apply to such emotions”, though he does not linger on it more than he says Stewart did.⁶¹ The sublime is the result of experiences and sensations and it is simply the way of processing “the greatness of the object” or “the idea excited & associated with it”.⁶² But the power to differentiate the sublime from the ordinary is in itself a moral process as it implies the possibility to recognize the good from the bad, the good from the best. Darwin eliminates the sense of sublime or at least suppressed the transcendental value which is associated to it by rendering it a consequence of instinctive moral capacities. He applies the same method to art and beauty. Continuing on the views of Stewart, Darwin comments on the origin of taste:

Taste has been supposed by some to consist of “an exquisite susceptibility from receiving pleasures from beauties of nature & art” But as we often see people who are susceptible of pleasure from these causes who are not men of taste & the reverse of this, taste evidently does not consist of this, but rather in the power of discriminating & respect good from bad.⁶³

Similar to his position on sublimity, Darwin, referring this time to Voltaire (1694-1778), explains that taste is “acquired by a long series of experiments & observations [...] like visions [...] so instantaneous, that we cannot ever perceive the various operations which the mind undergoes in gaining the result”.⁶⁴ Commenting on Gotthold E. Lessing’s *Laocoon* (1766), Darwin speaks of the concept of beauty as the result of “instinctive impression” and as an “ideal

⁵⁹ *Ibid.* p. 27.

⁶⁰ *Ibid.* p. 18.

⁶¹ *Ibid.* p. 19.

⁶² *Ibid.* p. 19v.

⁶³ *Ibid.* pp. 20v – 21.

⁶⁴ *Ibid.* p. 20v.

standard, by which real objects are judged”.⁶⁵ Darwin writes on architecture and poetry that they are the result of mimicry, that is the imitation of “two primary sources, sight & hearing”.⁶⁶ The same applies to work of art. Quoting Lessing, Darwin explains that “new subjects are not fit for painter or sculpture” as what is considered as beauty and what is then judged as such are real known objects. The beauty seen in painting or other works of art is not the art itself but the “embodying of a floating idea”.⁶⁷ It is not the eye that approves or disapproves, but rather the “imagination through the medium of the eye”; the eye is the means which “will allow the secondary pleasure of harmonious colours”.⁶⁸ The pleasures in taste and beauty are actually imagined pleasures. The harmonious colours seen in nature are pleasurable and independent from imagination, and in art, the harmonious colours are pleasurable only as they allow the imagination of the pleasures felt from nature. Darwin discusses further the origin of pleasure, taste and beauty in animals in his *Notebook M* through the arguments of Edmund Burke (1729-1797) and Adam Smith. What is relevant here is that Darwin undertook each of his inquiries on morality from a naturalistic viewpoint and from the firm belief that morality is the product of nature. He inquires on the link between moral sense and animals and the aim of moral animals.

In the late 1830s, Darwin speculates on humans as any other animal. Indeed, he often speaks of common points between humans and animals. For instance, while mentioning emotions, he writes “those emotions which are strongest in man, are common to other animals & therefore to progenitor far back”.⁶⁹ Commenting on an article from *The London and Westminster Review*, he argues that it was no longer necessary to question whether human beings have instincts or to even question the existence of instincts as “surely in animals according to usual definition, there is much knowledge without experience”. The same surely applies to humans and therefore Darwin could not understand why the reviewer seemed to be doubting John Stuart Mill’s empiricist statement; “we see no ground for believing anything can be the object of our knowledge except our experience”. Using Mill’s quote, Darwin reasserts his position, a position that could well end “the great division amongst metaphysicians— the school of Locke, Bentham & Hartley, & the school of Kant & Coleridge is regarding the source of knowledge”.⁷⁰

⁶⁵ *Ibid.* p. 22.

⁶⁶ *Ibid.* p. 11bv.

⁶⁷ *Ibid.* p. 24.

⁶⁸ *Ibid.* p. 23.

⁶⁹ *Ibid.* p. 29.

⁷⁰ *Ibid.* p. 33.

Darwin made several comparisons between humans and animals, firmly grounding his belief in a common instinctive nature of humans and animals. Yet he went further even, when he made an analogy between plants, animals and humans. In an Aristotelian fashion, he made the following statement:

In animal growth of body precisely same as in plants, but as animals bear relation to less simple bodies, and to more extended space, such powers of relation require to be extended. Hence sensorium, which receives communication from without, & gives wondrous power of willing. These willings are commonly to every animal instinctive and unavoidable. [...] Hence there are two great systems of laws/ in the world/ the organic & inorganic– the inorganic are probably one principle for connect of electricity chemical attraction, heat & gravity is probable.– and the organic laws probably have some unknown relation to them.⁷¹

In writing so, Darwin was already providing proofs and arguments of the animal nature of humankind. While discussing the views of Malthus, Darwin also showed interest in the stability of social order, and the impact of civilization on human nature:

Civilization is now altering these instinctive passions which being unnecessary we call vicious.– jealousy in a dog no one calls vice) on the same principle that Malthus has shown incontinence to be a vice & especially in the female. [...] The difference between civilized man & savage, is that the former is endeavouring to change that part of the moral sense which experience (education is the experience of others) shows does not tend to greatest good.– therefore rule of happiness is to certain degree right.– the change of our moral sense is strictly analogous to change of instincts amongst animals.⁷²

At this point, Darwin recognized a difference in moral instincts between civilized humans and savages while analogizing human instincts to that of dogs. However, the principles of instincts are yet to be explained by Darwin; it is probably the reason why, in the following years, he focused on the matter. And as the definition of moral instinct as well as its implication remains unclear, it took Darwin more than thirty years to produce a viable explanation. Nonetheless, many of the arguments that are seen in *The Descent* are already present and Darwin already understood that “man from the effects of hereditary knowledge, had produced almost greater changes in the polity of nature than any other animal.”⁷³

However, Darwin’s reflection on moral sense caused him to fluctuate between a complete materialistic view of the natural world and a teleological one. When inquiring into the reason for moral sense, he pondered on the finality of human morality. This is another aspect of Darwin’s earlier thought on morality which can be found in his *Notebook E* where he discussed the link between sex and sociability. Indeed, he wondered whether nature had a final cause, and whether that cause was the emergence of moral sense:

⁷¹ *Ibid.* p.35.

⁷² *Ibid.* pp. 29v-30.

⁷³ *Ibid.* pp. 7-7v.

My theory gives great final cause “ I do not wish to say only cause, but one great final cause [...]” of sexes [...] for otherwise, there would be as many species, as individuals, [...] we see it is not the order in this perfect world, either at the present, or many anterior epochs.— but we can see if all species, there would not be social animals [...] hence not social instincts, which I hope to show is “probably” the foundation of all that is most beautiful in the moral sentiments of the animated beings. If man is one great object, for which the world was brought into present state [...] & if my theory be true then formation of sexes rigidly necessary.⁷⁴

To Darwin then, sexual generation exists for social animals to appear, and social animals exist for moral sentiments to emerge. Therefore, the final aim of nature is human beings with their morality, and this final goal works through slow changes. Though I will discuss more on the teleological implications of Darwin’s theory in the next chapters, it is important once more to see that Darwin reflected on many implications of a theory of moral sense long before the appearance of *The Descent* in 1871. Darwin’s ideas on the matter are still speculative, but the central nerve that is inherent to his early arguments is that moral sense is an instinct. It is precisely for this reason that he had been associated to Mackintosh at first, though Mackintosh is part of a larger group of moral philosophers.

It is clear from the examination of both his notes and journals that Darwin’s theory of human mind was not spontaneous but the result of years of elaboration. Moreover, I only mentioned those who are believed to have had the largest influence over Darwin’s moral thoughts, many more theorists have been quoted or commented by Darwin, which favours a continuity in Darwin’s thoughts as well as within the history of moral theory. What Darwin offered was simply a well-cooked theory supported by all-mighty science. By 1838, Darwin seems already convinced that humans as well as animals were the result of a common process, an evolutionary one. And while he began questioning human societies, morality and sociability, he was slowly presenting an evolutionary view of the world. In summer 1869, Darwin started reading once more moral theories as he was then indebted to give an explanation on human origin. In a letter, Victorian feminist activist Frances Power Cobbe (1822-1904) explains how she had prompted Darwin to read Emmanuel Kant’s (1724-1804) *Groundwork of the Metaphysics of Morals* (1785):

At this time Mr. Darwin was writing his *Descent of Man*, and he told me that he was going to introduce some new view of the nature of the Moral Sense [...] I ventured to urge him to study him, and observed that one could hardly see one’s way in ethical speculation without some understanding of his philosophy. [...] He declined my book, but I nevertheless packed it up with the next parcel I sent him. On returning the volume he wrote to me:— ‘I was very good of you to send me *volens volens* Kant, together with the other book. I have been extremely glad to look to the former. It has interested me much to see how differently two men may look at the same points. Though I fully feel how presumptuous it sounds to put myself even for a moment in the same bracket with Kant—the one man a great philosopher looking exclusively into his own mind,

⁷⁴ DARWIN, Charles, R., *Notebook E. Transmutation of Species*. Ed. Kees Rookmaaker. 1838-1839. p. 49.

the other a degraded wretch looking from the outside through apes and savages at the moral sense of mankind.⁷⁵

Though I will discuss Kant's influence over Darwin's moral theory in the next chapter, I thought it necessary to mention him at this point of the study as it again illustrates that Darwin's theory is part of a continuous moral history and that he was aware and inspired by other moral theorists.

Now that the prelude of the theory of human mind has been studied, the next part will consider Darwin's genesis of human moral sense. This part will mainly be constructed upon the findings Darwin exposed in *The Descent of Man* as little had been said on human affairs in *The Origin of Species*. Darwin's aim in the *Descent* was mainly to address the issues of morphological and intellectual evolution of man through the mechanism of natural selection and sexual selection. The references to ethical theorists and philosophers are therefore rare, as Darwin approached the subject as a naturalist. Yet, as I have tried to prove, although his approach is naturalist, the concept of morality is intrinsically linked to the metaphysical sphere; this is why Darwin spent time inquiring on moral theories. David Hume, Adam Smith, James Mackintosh, Emmanuel Kant, John Stuart Mill, John Abercrombie, William Paley, Harriet Martineau, Edmund Burke, Auguste Comte, David Hartley, Voltaire and many others are mentioned in Darwin's notes, not to mention those who have been discussed in the writings of the philosophers mentioned above. Thus, when Darwin began composing *The Descent*, he might have launched into the subject from a naturalist standpoint, but he surely had the necessary baggage on the matters of morals. In the course of his researches and by reading widely into other disciplines, Darwin was able to make a fundamental contribution of his own.

⁷⁵ COBBE, Frances, P., *Life of Frances Power Cobbes. By Herself*. London: Richard Bentley & Son, Vol.2, 1894, p. 125. The reason why Darwin undertook the human question in *The Descent*, as argued earlier, is given several causes, notably the misrepresentation and misconception of his ideas in *The Origin of Species*.

2. The Ascent to Morality

Once Darwin pieced together his theory of evolution, he had little doubt that human beings were shaped by natural selection. To him, everything that is related to humans has a material basis. Human mind, morality and culture are the results of the evolution of genetic makeup and environmental interaction. And by 1871, he endeavoured to prove it in his *Descent of Man and Selection in Relation to Sex*. In this section, I will first consider Darwin's moral theory as it will serve as basis for the rest of the study, then I will focus on his explanation of altruism and egoism as it is the main reason why his theory had been misunderstood, and finally, I will shed some light on the relation between natural selection, morality and civilization, as from this point, new agencies come into account.

Contrary to common belief, Darwin's moral theory does not lead to nihilism but rather, similar to many moral philosophic theories, it offers an account of moral virtues free from divine commandments. Darwin depicts a natural world with a sense of unity and coherence where ills are restored not through the good grace of a higher power but by humans' own sway. The secular path drawn by Darwinian morality ought to guide humans to truly be themselves as they exist in nature, and not to strive into unattainable transcendental aspirations.

In *The Descent*, Darwin illustrates humans as any other animals, endowed with innate inheritable traits and subjected to variations through the supremacy of natural selection. In the first chapter, Darwin describes the homologous physical traits between humans and other species. He focuses on vertebral structure, common diseases, embryonic development, rudimentary organs and other features. He also explores sexual selection by speaking of courtship and mating rituals. Drawing most of his arguments through a series of morphological analogies, he spells out the striking resemblance that existed between all species, including humans, to admit a community of descent. It is only by the second chapter that he starts to explore human mental and moral capacities. However, it was crucial that he starts by proving that humans share a common ancestor with all species from the animal kingdom and, that they are the products of a gradual evolution, to admit that they differed from animals only in degree and not in kind. This point is stressed by Darwin several times due to its relevance in his explanation of human moral sense. It allowed him to later validate any proposal that involves the comparison with other species, especially in the case of the origin of moral sense, as it is not exclusive to humans but is actually shared by many species, although not to the same extent:

It has, I think, now been shewn that man and the higher animals, especially the Primates, have some few instincts in common. All have the same senses, intuitions, and sensations,— similar passions, affections, and emotions, even the more complex ones, such as jealousy, suspicion,

emulation, gratitude, and magnanimity; they practise deceit and are revengeful; they are sometimes susceptible to ridicule, and even have a sense of humour; they feel wonder and curiosity; they possess the same faculties of imitation, attention, deliberation, choice, memory, imagination, the association of ideas, and reason, though in very different degrees. The individuals of the same species graduate in intellect from absolute imbecility to high excellence. They are also liable to insanity, though far less often than in the case of man.⁷⁶

Darwin associates intellectual faculties to a gradual differentiation and describes moral sense as emerging from complex instincts and being displayed in various species in different degrees. Indeed, as he remarks, human conscience and intellectual power are the prime difference between humans and animals.

The first step in Darwin's explanation on moral sense was to remind us that humans are, before all, social animals, like hive bees and ants, with social instincts to support their living style.⁷⁷ Social instincts allowed the species to feel the pleasures which emanate from sociability such as mutual aid. However, these social instincts may be conferred different aims according to the species. Indeed, some species display social instincts to determine the roles of their individuals, such is the case for hive bees or other species, like humans or apes. They would tend to articulate these social instincts through social life and mutual aid. Darwin describes "social instincts" as the instinctive predisposition "to take pleasure in the society of its fellows, to feel a certain amount of sympathy with them, and to perform various service to them".⁷⁸

Sympathy, as Darwin names it, is the basis of social instincts. To sympathy, he adds memory and imagination. Animals with improved intellectual faculties will be able to rememorate their feelings of dissatisfaction or shame when they yield to a wrong instinctive desire, going against the social structure. The imaginary psychological process current in certain species give rise to moral feelings. By remembering past actions and motives, the individual is capable of improving its ability of sympathy. Imagination also enables one individual to share the feelings of other members of its group; it intensifies sympathy for others.

To this, Darwin points out the capacity to express opinions through language and sounds. By reminiscing and communicating, an individual could express social desires and wishes about the good and the bad, the just and the unjust. The acquisition of language permitted the species to communicate, to respond to praise and blame and to codify behaviours. As Darwin notes, for social animals, social acceptance guided by sympathy is crucial as "solitary confinement is one of the severest punishments which can be inflicted".⁷⁹ Many who are

⁷⁶ *Op.cit.* DARWIN. *The Descent of Man*. p. 79.

⁷⁷ *Ibid.* p. 100.

⁷⁸ *Ibid.* p. 98.

⁷⁹ *Ibid.* p. 108.

rejected and thus separated from the group often perish. The imaginary recollection of past experiences allowed an individual to instinctively respond correctly to the requirement of its social community while satisfying its social instincts of being accepted among this very community. Darwin explains that, by feeling “remorse, repentance, regret, or shame”, the individual will act differently in the future as “this is conscience; for conscience looks backwards, and serves as a guide for the future”.⁸⁰ Darwin proves what he already foretold in his 1838 notes when disagreeing with Paley on anticipation as motive for moral acts.

Thus, the combination of sympathy, the development of intellectual faculty as imagination and memory and the acquisition of language gave rise to a sense of good and bad in species. The first eminence of morality in humans is the result of social instincts and intellectual capacity. To that Darwin also linked imagination and morals to the sense of beauty which prevails in certain species, notably in sexual selection. The need for appraisal and the fear of infamy led individual to act according to a social structure where there are a good way and a bad way to act instinctively. As humans’ capacity to experience feelings is higher and more developed than in other species, so are the moral requirements. Those feelings are nonetheless present in many species such as in dogs:

But another and much more powerful stimulus to the development of social virtues, is afforded by praise and the blame of our fellow-men. [...] The rudest savages feel the sentiment of glory, as they clearly show by preserving the trophies of their prowess [...] the extreme care which they take of their personal appearance and decorations; for unless they regarded the opinion of their comrades, such habits would be senseless. [...] it is scarcely credible that a savage, who will sacrifice himself rather than betray his tribe [...] would not feel remorse in his utmost soul [...] We may therefore conclude that primeval man, at a very remote period, was influenced by the praise and blame of his fellows [...] To do good unto others— to do unto others as ye would they should do unto you—is the foundation-stone of morality.⁸¹

Finally, Darwin connects to his explanation on morality, the capacity for habits or customs. With habits, members of a community are used to acting according to social norms. Especially as habits forged from producing opinions for the common benefit of the community will then be inherited by the following generations.⁸² Although in the case of humans, social norms are fuelled by other artificial – un-natural – requirements, Darwin emphasizes that they nonetheless originate from biological factors and that, therefore, moral sense is genetically determined. He writes that “however great weight we may attribute to public opinion, our regard for the approbation and disapprobation of our fellows depends on sympathy [...] forms an essential part of the social instinct, and is indeed its foundation stone”.⁸³ Moreover, habits are

⁸⁰ *Ibid.* p. 114.

⁸¹ *Ibid.* p. 131.

⁸² *Ibid.* p. 132.

⁸³ *Ibid.* p. 99.

at the source of culturalization, given that some virtues developed as habits could be spread within a group through education and even beyond, through imitation and other means of transmission. Humans' ability for speech rendered cooperation easier between members of a community, and this is particularly why humans developed political abilities more than any other animal, for their reason allows them to produce more complex judgements and deliberations on the common good.

This is why stating that humans are higher animals was crucial to Darwin's argumentation. Indeed, he was able to decipher early and easier stage of moral sense and transposed them to humans. By comparing humans' mental powers at the length of other species, Darwin proved that moral sense emerges from social instincts and is the result of natural process. Powered by past impressions, high activity of mental capacity and sympathy, humans like animals acquired a sense of morality. However, though rooted in natural selection, human morals are much more complex than that of other species, and require a much deeper inquiry.

Ultimately a highly complex sentiment, having its first origin in the social instincts, largely guided by the approbation of our fellow-men, ruled by reason, self-interest, and in later times by deep religious feelings, confirmed by instruction and habit, all combined, constitute our sense or conscience.⁸⁴

Darwin observes that social instincts combined to sympathy are primary guides to human morality but are seconded by other factors that seem to be mostly inherent to humans. Reason, for instance, gives humans the necessary level of intelligence and memory to produce practical judgements. The question of self-interest is much more controversial and probably had been utterly misunderstood from what had been made of Darwinism and the survival of the fittest by Social Darwinists. Self-interest is considered as looking for the best ways to promote one's welfare whereas selfishness is characterized by the lack of consideration for others. Although the primary concern of self-interest is directed towards one's self, it may, if needed, provide help and services to others, even make sacrifices, so that in the long run, it may be beneficial. Selfishness has a tendency to minimize sacrifice while maximizing one's interest, at the expense of the other. But, as the two words are often considered similarly, it created some confusion over Darwin's explanation of the origin of moral sense. Darwin found in altruism the answer to this dilemma, especially as it is another point upon which he disagreed with Paley and agreed with Mackintosh during his 1838 ethical reflections.

⁸⁴ *Ibid.* p. 132.

Altruism, to Darwin, originates from sympathy. The ability to show care for the others, he explains, is the consequence of instincts of sympathy. However, Darwin does not deny the existence of selfishness, but considers it as belonging to “low moral rules”. He investigates the reason why “strange customs and superstitions” as well as “self-regarding virtues” are rationally accepted:

Notwithstanding many sources of doubt, man can generally and readily distinguish between higher and lower moral rules. The higher are founded on the social instinct, and relate to the welfare of others. They are supported by the approbation of our fellow-men and by reason. The lower rules, though some of them when implying self-sacrifice hardly deserve to be called lower, relate chiefly to self, and arise from public opinion, matured by experience and cultivation [...]⁸⁵

To remedy the problem linked to selfishness, Darwin discusses the utilitarian principles and outlined the validity of his own theory in this respect:

It was assumed formerly by philosophers of the derivative school of morals that the foundation of morality lay in a form of Selfishness; but more recently the “Greatest “happiness principle” has been brought prominently forward. It is, however, more correct to speak of the latter principle as the standard, and not as the motive of conduct.

To Darwin, a human being acts spontaneously, driven by his altruistic instincts, to assist other members of his community, sometimes even at their own risk. He explains that “under circumstances of extreme peril, as during a fire”, a human being hardly has time to feel pleasure in their haste to save their fellows. His actions are impulsive, “that is from instincts or long habits, without any consciousness of pleasure, in the same manner as does probably a bee or ant, when it blindly follows its instincts”.⁸⁶ Though both happiness and welfare can coincide, Darwin says, that a human “acts for the general good, rather than for the general happiness of mankind”.⁸⁷ In this way, humans’ moral actions are motivated by good, and cannot be considered as selfish. At this point we can recall what Darwin wrote in his *Old and Useless Notes*, when he agreed with and joined the two classes of moralists belonging to the philosophical schools of “Intuitionism” and Utilitarianism”.⁸⁸ Darwin defends a world where humans have moral sense that depends on instincts – intuitions – and that is guided not by the general happiness but the general good:

[A] happy tribe will flourish better [...] “greatest happiness principle” will have become a most important guide and object; the social instinct, however, together with sympathy (which leads to our regarding the approbation and disapprobation of others), having served as the primary impulse and guide. Thus the reproach is removed of laying foundation of the noblest part of our nature in the base of principle of selfishness; unless, indeed, the satisfaction which every animal

⁸⁵ *Ibid.* p. 122.

⁸⁶ *Ibid.* p. 120.

⁸⁷ *Ibid.* p. 121.

⁸⁸ Darwin mentions how his theory corroborates what has been “admitted by moralists of the derivative school and by some intuitionists, that the standard of morality has risen since an early period in the history of man”.

feels, when it follows its proper instincts, and the dissatisfaction felt when prevented be called selfish.⁸⁹

What is considered good becomes desirable and social practices are judged by how well they can satisfy natural human desires. Ultimately to Darwin, humans with enhanced “reasoning powers and foresight” will come to realize the benefits of mutual aid. Indeed a human being “aided his fellow-men [...] would commonly receive aid in return”. Though at first sight it might seem that this reciprocal altruism is fuelled by selfish impulses, Darwin explains that “from this low motive”, humans “might acquire the habit of aiding his fellows” and “certainly strengthen the feeling of sympathy” which already exists.⁹⁰ Thus, sympathy and altruism derived from social instincts are the primary and most important sources to human morality, which is then amplified by the greatest happiness principle itself derived from the necessity of the greatest good.

Darwin emphasizes this form of altruism in his theory of group selection. He postulates that there is not much difference in terms of advantage between a moral human and an immoral one, but that it would certainly be beneficial to a group of moral humans:

It must not be forgotten that although a high standard of morality gives but a slight or no advantage to each individual man and his children over the other men of the same tribe, yet an enhancement in the standard of morality and increase in the number of well-endowed men will certainly give an immense advantage to one tribe over another. There can be no doubt that a tribe including many members who from possessing in a high degree the spirit of patriotism, fidelity, obedience, courage, and sympathy, were always ready to give aid to each other and to sacrifice themselves for the common good, would be victorious over most other tribes, and this would be natural selection.⁹¹

Altruistic behaviour is useless to asocial animals, but an altruistic behaviour will allow a member of a community to guarantee the survival of his group through mutual aid, and in the same way, the survival of the group will assure that of the individual. Therefore, one can say that the emergence of moral sense is necessary to guarantee the survival of the community and that the singular member only has value to the group. Which indubitably relates to the theories of the social pact as they appeared in the original writings of Thomas Hobbes and Jean Jacques Rousseau (1712-1778). Darwin also speaks of kin selection to explain the benefits of individual self-sacrifice.

First mentioned in *The Origin of Species*, kin selection is a process of natural selection where an individual engages in self-sacrificial behaviour in order to increase the genetic fitness

⁸⁹ *Op.cit.* DARWIN. *The Descent of Man*. p. 125

⁹⁰ *Ibid.* p. 131.

⁹¹ *Ibid.* p. 132.

of its relatives. To present this eusocial evolution, Darwin uses hymenoptera, social insects such as ants, bees and wasps. In an insect colony with a queen, sterile members are workers. By means of natural selection applied to groups, some species produce sterile members to guarantee their survival.⁹² Darwin applies this principle to argue on the development of intellectual faculties through natural selection. It further proves that altruism is beneficial to the group rather than to the individual as some may even self-sacrifice for the good of the majority. This precise point might seem contradictory as he explained that altruism is only beneficial for the group and not for the individual – a point which is often questioned by researchers.

As Darwin defends an altruistic vision of human morality based primarily on an analogy to social instincts, one might ask whether social instincts are the result of group selection or individual selection:

At the moment of action, man will no doubt be apt to follow the strongest impulse; and though this may occasionally prompt him to the noblest deeds, it will more commonly lead him to gratify his own desires at the expense of other men. But after their gratification when past and weaker impressions are judged by the ever-enduring social instinct, and by his deep regard for the good opinion of his fellows, retribution will surely come. He will then feel remorse, repentance, regret, or shame; [...].⁹³

Here, the first impulse is rooted in “low moral rules”, that is selfishness, as it is only after enduring the repercussion of social exclusion that altruism appeared. Therefore, could it be because individuals would strive better in communities that social instincts appeared? If that is the case, the root remains selfish as the goal is to survive in a community and social instincts would originate from individual selection. This point is until today subjected to inquiry by Darwinian scholars. Robert Richards believes that Darwin produced strong evidence for altruism when he promoted his theory of group selection:

If it were only a matter of individual selection, the most advantageous trait would be one in which the bearer feigned cooperation while defecting. But in the group selection scenario, feigning cooperation while defecting would be deleterious for the whole group and the group would be selected against. Thus in the long run, the advantage goes to groups in which most of its members are sincere altruists.⁹⁴

After all, in the words of Adam Smith, “we sympathize even with the dead” even though they do not feel our sympathy as we do not gain anything from it; humans could well be sincere altruists or, it could just be that we sympathize with the dead as a means to strengthen the importance of surviving.⁹⁵ However, if Richards be right, it does not mean that it minimizes the

⁹² *Op.cit.* DARWIN, *The Origin of Species*. pp. 235-242.

⁹³ *Op.cit.* DARWIN, *The Descent of Man*. p. 114.

⁹⁴ RICHARDS, Robert, J, “Evolutionary Ethics: A Theory of Moral Realism”. *The Cambridge Handbook of Evolutionary Ethics*. Ed. Michael Ruse & Robert J. Richards. Cambridge University Press, 2017, pp. 143-157, p. 144.

⁹⁵ SMITH, Adam, *The Theory of Moral Sentiments*. London: Henry G. Bohn, 1853, p. 8.

value of individual selection in favour of group selection, as the latter produced social instincts. A group of altruistic members are more advantageous in terms of struggle for existence as the individuals of this group will gradually increase and eventually form a dominant community. Indeed, that is what Darwin writes on tribal competition:

When two tribes of primeval man, living in the same country, came into competition, if [...] the one tribe included a great number of courageous, sympathetic and faithful members, who were always ready to warn each other of danger, to aid and defend each other, this tribe would succeed better and conquer the other [...]⁹⁶

Such competitions between tribes motivated and induced the development of intellectual and moral abilities in which individuals learned to cooperate within groups.

Nonetheless, Darwin notes that “sympathy is excited, in an immeasurable stronger degree, by a beloved, than by an indifferent person”.⁹⁷ Therefore, even though the process of natural selection may have been altered by the introduction of aid, the character of this altruism must still be considered as a biological instinct of survival. Indeed, the survival need for offspring does not disappear with the emergence of moral sense, but rather is strengthened by familial bonding. This is why people tend to cooperate more with their own kin. The degree of altruism varies from kin to an indifferent person, but as long as they all belong to the same community, sympathy will be shown. As natural selection favoured the characters that ensured the survival and reproduction, humans would feel more sympathy to their kin and members of their own group. All animals, including humans, are naturally inclined to secure their preservation as well as their progeny. Even though the feeling of affiliation remains stronger within families, humans will learn to extend their sympathy to wider circles as their community increases until it even reaches lower animals. This will be enabled by experience and reflection. As I have already mentioned, reason is at the source of morally sustained judgements. The difference in intellectual capacity between civilized humans and savages accounts for immoral actions. Darwin explains that the appearance of wrongful deeds is the lack of reason. To foster his argument, Darwin evokes the immoral customs and superstitions that are considered by “rude men” as virtues. Infanticide, suicide, slavery and robbery of strangers practiced by semi-civilized humans and savages were considered as “honourable”. And to Darwin, “although in some ways beneficial during ancient times”, they are still wrong.⁹⁸

We have now seen that actions are regarded by savages, and were probably so regarded by primeval man, as good and bad, solely as they obviously affect the welfare of the tribe,—not that of the species, nor that of an individual member of the tribe. This conclusion agrees well with the belief that the so-called moral sense is aboriginally derived from the social instincts, for both

⁹⁶ *Op.cit.* DARWIN, *The Descent of Man*. p. 130.

⁹⁷ *Ibid.* p. 106.

⁹⁸ *Ibid.* p. 117.

at first exclusively to the community. The chief causes of the low morality of savages, as judged by our standard, are, firstly, the confinement of sympathy to the same tribe. Secondly, powers of reasoning insufficient to recognise the bearing of many virtues, especially of the self-regarding virtues, on the general welfare of the tribe. Savage, for instance, fail to trace the multiplied evils consequent on a want of temperance, chastity, &c. And, thirdly, weak power of self-command; for this power has not been strengthened through long-continued, perhaps inherit, habit, instruction and religion.⁹⁹

The lack of reason combined to habits – traditions – allows evils to prevail. For instance, the perseverance of slavery for millennia is due to the benefits that slavery brought to the community, and therefore little was questioned on the moral value of such acts, especially as “the slaved belonged in general to a race different from that of their masters.”¹⁰⁰ Slavery was already customary and required advanced reasoning for people to question their habits. This process, however, like every single one in Darwin’s theories, is gradual. Darwin demonstrates that “as man advances in civilisation [...] small tribes are united into larger communities, the simplest reason would tell each individual that he ought to extend his social instincts and sympathy to all the mems of the same nation, though personally unknown to him”.¹⁰¹ However, this was not enough to overcome slavery or other grotesque customs. To Darwin, the altruistic acts from which the individual does not benefit at all from acting morally will slowly be extinct. As it lacks intelligence, it would not be viable, and this is why in advanced civilized societies, the practices like self-sacrificing, torture or violence have been recognized as useless. Because “natural selection only acts tentatively”, some traits disappear while others will flourish.¹⁰² Ultimately, reciprocity in altruistic behaviour, sociability and reason will teach humans to extend their social instincts and sympathy to “men of all nations and races”. As history of moral progress shows that all human societies are in distinctive stages of evolution, thus the level of reciprocity and moral recognition varies accordingly:

As man gradually advanced in intellectual power, and was enabled to trace the more remote consequences of his actions; as he acquired sufficient knowledge to reject baneful customs and superstitions; as he regarded more and more, not only the welfare, but the happiness of his fellow-men; as from habit, following on beneficial experience, instruction and example, his sympathies became more tender and widely diffused, extending to men of all races, to the imbecile, maimed, and other useless members of society, and finally to the lower animals,—so would the standard of his morality rise higher and higher.¹⁰³

Mutuality and reciprocity seem crucial to social symbiosis. But as the intellectual level varies among different tribes, sometimes amongst the same community, the reciprocal altruism can be unequal, especially between different communities. Concerning the question of slavery, the

⁹⁹ *Ibid.* p. 119.

¹⁰⁰ *Ibid.* p. 117.

¹⁰¹ *Ibid.* p. 122.

¹⁰² *Ibid.* p. 141.

¹⁰³ *Ibid.* p. 125

habits of the benefits of slavery blinded its practitioners. Only when humans reached a sufficient level of intellectual power and, thus, extended their sympathies to all living creatures, were they able to realize the wrongfulness of slavery, especially when they understood that other “races” were also human. And in the same way, only those who attained such a level of reasons would be able to accurately judge moral values. In the long run, humans would have evolved to resist exploitation for they recognize its disadvantage as they also evolve to favour cooperation and reciprocity. Human beings as political animals choose leaders in order to assure the coordination of social life. However, some of them might hurt the community, therefore there is a level of intellectual capacity required to be able to manoeuvre social conflicts and confluences of interest. The more intellectual capacities are developed, the more humans can deliberate on criterion of justice according to the common interest. Yet, the difficulty to judge an action comes with the contingencies that exist among individuals. Therefore, to judge an action is to take into account each particular circumstance for each particular people.

Hence, to summarize, moral sense is the product of a gradual evolution of rational reflections and social emotions. Darwin’s moral theory supposes that humans have evolved to gain social instincts which leads them to act with sympathy towards the other members of their community. To this, however, the development of intellectual faculties such as memory and imagination is crucial. This way, they are able to remember past emotions of glory and shame and retrospectively produce practical judgements on future actions. It also allows them to imagine the feelings of others. For it to be truly effective, the acquisition of communicative abilities, such as speech, permitted humans to publicly express opinions about right and wrong. They were able to deliberate in light of past actions and future expectations and coordinate for the common good. The cognitive ability to retrospectively reflect allowed humans to satisfy their natural desire to live in community. Human sympathy and altruism rests on three fundamental moral principles, that is kinship (parental care), mutuality (mutual aid) and reciprocity (group cooperation). Finally, from the habit of acting on sympathy and on moral codes, human societies will be shaped by these social norms and behaviours which gradually became instinctive over generations. By showing care to others, humans were able to pass on their habits and knowledge to their progeny and to others as well. Moral experiences and moral emotions are innate to mankind and are cultivated by moral traditions installed through education, imitation and religious impulses. Designed by natural selection, humans are hereditarily predisposed by nature towards cooperation and helping others and by doing so, they are *acting as they evolved to act*. The human mind was prepared to learn how to behave morally in a morally ordered society as it was meant to be by nature.

However, one persistent question that hitherto remains is whether natural selection is still of influence on the individual belonging to a group. Natural selection in the case of group selection behaves as if it is submitted to its own law as it is selecting the greatest advantage against isolated manifestation of individual impulses. Natural selection seems to be transferring vital competition and elimination into a new form favouring united and assimilative behaviour.¹⁰⁴ Not only does Darwin explain that aid conferred to others assures the survival of the community, but he also recommends anti-selective cooperation. In the section named “Natural Selection as affecting Civilised Nations”, Darwin inquires on the effect of natural selection of civilized nations.¹⁰⁵ Delving into the findings of Wallace and Galton, he notes that for savages – still highly under the influential laws of natural selection –, the weak are easily eliminated; but in civilized societies, the weak are concealed in asylums (for the imbeciles) or institutes (for the poor) with medical experts attending to their lives. As a result, the weak of civilized societies have propagated, for instance through the effectiveness of vaccination. Any person, he says, who has knowledge in breeding, would deem the vaccination of weak as “highly injurious to the race of man”; “It is surprising how soon a want of care, or care wrongly directed, leads to the degeneration of a domestic race; but excepting in the case of man himself, hardly any one is so ignorant as to allow his worst animal to breed”.

However, Darwin does not preconize that help must not be assured to the weak; on the contrary, he continues by explaining that not helping the poor would not necessarily benefit the society:

The aid we feel impelled to give to the helpless is mainly an incidental result of the instinct of sympathy, which was originally acquired as part of the social instincts, but subsequently rendered, in the manner previously indicated, more tender and more widely diffused. Nor could we check our sympathy, even at the urging of hard reason, without deterioration in the noblest part of our nature. The surgeon may harden himself whilst performing an operation, for he knows that he is acting for the good of his patient; but if we were intentionally to neglect the weak and helpless, it could only be for a contingent benefit, with an overwhelming present evil. We must therefore bear the undoubtedly bad effects of the weak surviving and propagating their kind [...]¹⁰⁶

The equation is simple for Darwin, immoral acts cannot remedy evils. He proves it through a long argument on the reason why the European countries progressed in an unparalleled rate. Progress, he explains, “is no invariable rule”.¹⁰⁷ Here is what he writes looking at Ancient Greece:

¹⁰⁴ *Op.cit.* TORT. p. 597.

¹⁰⁵ *Op.cit.* DARWIN, *The Descent of Man*. pp. 134 -135.

¹⁰⁶ *Ibid.* p. 134.

¹⁰⁷ *Ibid.* p. 140.

It has been urged by several writers that as high intellectual powers are advantageous to a nation, the old Greeks, who stood some grades higher in intellect than any race that has ever existed, ought, if the power of natural selection were real, to have risen still higher in the scale, increased in number, and stocked the whole of Europe.¹⁰⁸

To him, this “tacit” assumption is erroneous as the prevalence of a group depends upon “concurrent favourable circumstances”. The idea here is that if natural selection favours those who present the most advantageous traits to progress, then, the Greek population should have expanded while the other nations should have decreased in numbers:

Individuals and races may have acquired certain disputable advantages, and yet have perished from failing in other characters. The Greeks may have retrograded from a want of coherence between the many small states, from the small size of their whole country, from the practice of slavery, or from extreme sensuality; for they did not succumb until “they were “enervated and corrupt to the very core.

Though high mental and intellectual capacities seen in humans led them to progress into a superior animal, reason is not the only component. Indeed, one of the causes Darwin gives to the downfall of the Greek civilization is its lack of morality. Both reason and morality are gained through intellectual capacities, and both are necessary. This is why Darwin believes that ending the care for the weak will not assure the genetic fitness of the society. To strengthen his argument, Darwin then refers to the Spanish nation. He recalls how they dominated for long and yet remain, to the day, far “in the race” for progress. This time, he blames the “incalculable” evils of the Catholic Church and the Holy Inquisition”:

Almost all the men of a gentle nature, those given to meditation or culture of the mind, had no refuge except in the bosom of the Church which demands celibacy [...] some of the best men—those who doubted and questioned, and without doubting there can be no progress—were eliminated during three centuries at the rate of a thousand a year.

Imprisonment and burnings under the laws of the Holy Inquisition as well as celibacy undoubtedly had a “deteriorating influence on each successive generation” as high spirited and intelligent humans did not have offspring to inherit their traits.¹⁰⁹

Another criterion to which Darwin associates the downfall of a nation is the lack of struggle. Seconded by the ideas of one Rev. Zincke, Darwin explains that progress of Anglo-Saxon colonists and that of the United States is the result of natural selection. He says that “the most energetic, restless, and courageous men from all parts of Europe have emigrated during the last ten or twelve generations to that great country [United States], and have there succeeded best”.¹¹⁰ Similarly, he argues that Spanish settlers retrograded because they found themselves

¹⁰⁸ *Ibid.* pp. 140-141.

¹⁰⁹ *Ibid.* p. 141.

¹¹⁰ *Ibid.* p. 142.

in easier living conditions.¹¹¹ When the struggle for existence is low, it does not “force man upwards to his highest standard”; such is the case for the Spanish settlers:

Obscure as is the problem of the advance of civilisation, we can at least see that a nation which produced during a length of period the greatest numbers of highly intellectual, energetic, brave, patriotic, and benevolent men, would generally prevail over less favoured nations.¹¹²

Those equipped with these traits are favoured not particularly to survive but to progress. Natural selection, as it appears to Darwin, gains a subordinate degree in civilized societies. Darwin comes to the end that “with civilised nations, as far as an advanced standard of morality, and an increased number of fairly good men are concerned, natural selection apparently effects but little; though the fundamental social instincts were originally thus gained”.¹¹³ Hence, the solution to help weak members of a nation is education:

The more efficient cause of progress seems to consist of a good education during youth whilst the brain is impressible, and of a high standard of excellence, inculcated by the ablest and best men, embodied in the laws, customs and traditions of the nation, and enforced by public opinion. It should, however, be borne in mind, that the enforcement of public opinion depends on our appreciation of the approbation and disapprobation of others; and this appreciation is founded on our sympathy, which it can hardly be doubted was originally developed through natural selection as one of the most important elements of the social instincts.¹¹⁴

Darwin deduces that all civilized nations were once barbarous, therefore, that all nations can improve. So, the right solution, the one that goes along what nature intends, is to act through standards of excellence and morality, and pass on these standards to future generations.

This is what Patrick Tort calls “the reversible effect”. From a certain point, by strengthening the action of social instincts, the selective mechanism itself evolved to a point where it came as a secondary one. Where nature eliminates, Darwin explains, civilization protects and transforms through education. The struggle for existence does not completely disappear but loses its dominant position within human civilization in favour of moral, intellectual and religious education. But when the moral standard decreases, we see natural selection’s influence increase. In a civilized society, humans gradually evolved from a condition of self-adaptive necessity to the everchanging environment to a situation of domination. Civilized humans are now less in need to adapt to their environment as they are capable of rationally and technically adapt their surroundings to their own needs by stabilizing their condition of existence as much as possible.¹¹⁵ Yet, civilized humans do not negate their

¹¹¹ *Ibid.* p. 143.

¹¹² *Ibid.* p. 142.

¹¹³ *Ibid.* p. 137.

¹¹⁴ *Ibid.* p. 143.

¹¹⁵ *Op.cit.* TORT. pp. 568-569.

nature, as they still display moral instincts, but only supplant the slow process of natural selection with a quicker solution, that is education.

To conclude, Darwin proved with this way, as Aristotle formulated it, that humans are social and political animals endowed with reason and morals. Darwin's material monism indicates that moral sense and rational capacities allow humans to formulate fundamental principles sanctioned by intersubjective cooperation and assertions, which are at heart fundamentally objective and universal.¹¹⁶ Many of the aspects he postulated in his notebooks have been scientifically articulated in his theory of moral sense. He scientifically sustained almost every premise and conjecture he held during his youth. Darwin's genesis of morality corroborates with his early ethical contemplations and validates what he already believed in 1838. A fact that proves the continuity in Darwin's ethical theory within the history of moral theories but also in Darwin's mind. Darwin studied many ethical theories written by famous and admired theorists, he questioned them, forged his own mind, and later proved it scientifically. There is no novelty in what Darwin said on moral sense, only that it is now proven by science. Though the materialistic implications of Darwinism created havoc in the religious sphere, they also emphasize the discrepancies existing between progressists and conservatives. Conservatives reproached Darwin with the collapse of established dogmas in favour of ruling nature. Even if Darwin's theory of evolution is in itself an illustration of progress, I would venture to say that it is also characterized by many conservative assumptions, just as the Victorian era represents this everlasting vacillation between conservatism and progressivism. My objective is to defend that Darwin's theory of morality is both conservative and progressive. As a result, the next section will be devoted to this disputed question.

¹¹⁶ Monism refers to a doctrine which denies the existence of dualism, such as between matter and mind.

3. A Progressive Theory of Moral Conservatism

Roughly speaking, conservatism alludes to a political and social philosophy in which traditional social structures and ancient morals are preserved. It aims to protect established dogmas for they have been favourable for social stability and continuity. When Darwin published his theory of evolution, the existentialist dilemmas which emanated from his ethological vision led reactionaries to oppose his modernism. By rendering the place of human in nature inconspicuous, or at least as it appeared at first, conservatives, such as theologians, reacted violently to Darwinism as their basic essence and dogmas were questioned – as is often the case with novelty. However, many jettisoned its epistemological implications in the name of progress and sought to prove its conformity to established beliefs. Therefore, Darwinism can be allied to both conservative thinkers and progressionists. From my previous study on proving the existence of a “social” Darwinism, I can attest to a democratic and progressive view of Darwinism, and therefore to a strong continuity of Darwinism within the scope of modernism.¹¹⁷ My aim in this section is to reveal the conservative aspect of Darwinism, one that does not necessary lead to the justification and strengthening of the prevailing social inequality. It is often said that Darwin wrote his human theory in correlation to the requirements of his society. As it would be impossible to take the Victorian out of the man, Darwin did come as a product of his society where established dogmas were questioned while morality was strengthened. The transitional nature of the Victorian nineteenth century during which people vacillated between progress and conservatism is patently identified in Darwin’s ideas. Therefore, proving that on some level Darwinism can be both conservative and progressive is inscribing it in a strong continuity, as it is an illustration of the history of both conservative and progressive ideas. Thus, I will divide this section into two parts: in the first one, I will approach the concept of natural law in light of Darwin’s moral theory; then, in the second one, I will discuss some direct common positions between conservative thinkers and Darwin. To support my arguments on such a debatable topic, I will refer to and critique the findings of Larry Arnhart in *Darwinian Natural Right: The Biological Ethics of Human Nature* (1998) and *Darwinian Conservatism* (2005), given that he is a proponent of conservative Darwinism.

It is often believed that science has no place in politics and ethics for it endeavours to remain neutral towards everything except the evidence. Politics and morals are biased and do not always treat science with a neutral regard. However, if politics as well as morals are

¹¹⁷ Darwin’s explanation of the social world is distinct from Social Darwinism (Herbert Spencer’s). But it does not imply the inexistence of a “social” Darwinism.

supposed to remedy human problems, they must have a complete understanding of human nature and thus rely on scientific basis. And as science, with Darwin, can explain politics and morality through objective assumptions, this inherent distinction is ended, even though many would believe, like Stephen Jay Gould, that Darwin, at best, could only offer a moral anthropology but not in any case decide on the value of moral laws.¹¹⁸ Arnhart remarks that:

One of the most pervasive assumptions in the social science is that there is an unbridgeable gap between *is* and *ought*. This is often called ‘Hume’s law’ [...] because of this separation between judgements of fact and judgement of value, it is thought, scientific objectivity in the social science dictates moral relativism.¹¹⁹

However, using nature in politics to justify certain practices or to denounce others has existed and persevered for millennia through the concept of natural law, and was finally consecrated by Darwin without separating facts from values.

Natural law is considered as a higher moral law that exists independently from human will. It is inherent to the nature of humans but is not created by them, only recognized through human reason. From natural law are derived all of human natural moral obligations and duties. One particular trend of natural law is to justify and rationalize the already existing order, thus, it has a conservative role. Another of its trends is that it’s use to criticize existing oppressive social orders.¹²⁰ The concept of natural law finds its root in Greek philosophy and especially through the words of Sophocles (497-406 B.C.). Later, Aristotle (384-322 B.C.) studied humans as social and political animals who use their naturally endowed capacities to deliberate about the conditions of their lives. Through a biological understanding of humans, Aristotle, in a Darwinian fashion, explained the roots of human politics and rationality. Linking Darwin to Aristotelian ideas will prove that Darwin did not break with traditional thinking.

In *Ethics*, Aristotle explains moral values and the basis of parental care and states that humans form families and then communities because they are social animals who above all strive to secure their safety and that of their progeny. In *Politics*, he inquires on human political nature, he compares them to other political animals such as bees, wasps and ants, and concludes that leaders of social communities are crucial to maintain the social stability. He also observes the importance of speech which allows humans to form more complex judgements in order to best serve the interest of their community, and which differentiates them from other social and

¹¹⁸ GOULD, Stephen Jay, *Antilopes, Dodos et Coquillages*. Point Seuil, 2008, p. 480.

¹¹⁹ ARNHART, Larry. *Darwinian Natural Right: The Biological Ethics of Human Nature*. New York: State University Press, 1998, p. 69.

¹²⁰ KITIME, Eliud, “Natural Law”. *Law*. Mzumbe University, 2016.
<https://www.slideshare.net/kitime2015/natural-law-60595251> (Accessed 24/02/2020)

political animals.¹²¹ Aristotle also sees a principle of progressive change – not to say evolution – in all living things. Aristotle believes that social order and human morality can be explained as the product of nature, habit and reason. Indeed, he writes in *Politics* that: “There are, in fact, three things by which men become good (*agathoi*) and virtuous (*spoudaioi*). These three things are nature (*physis*), habit (*ethos*), and reason (*logos*).”¹²² However, the place of nature in Aristotle’s ideas is subjected to tensions. Indeed, to him, though humans display natural characters, those traits can be altered by habits, and if not, they can be reasoned into better ones. So far, Darwin proved all these points and even used the same analogies to foster his ideas.

Moreover, Aristotle assesses in the opening chapter of *Nicomachean Ethics II* that “[t]he virtues arise in us neither by nature nor contrary to nature; we are naturally able to receive them but they are brought to completion by habit”.¹²³ Aristotle saw that humans possess the capacity to act virtuously as well as viciously, and as he observed in nature that the potentiality of elements produces single effects, moral sense on the contrary produces several effects as mentioned and is itself the product of several causes – that is reason and habits. Therefore, the contribution of nature appears to be secondary in cause of moral training.¹²⁴ Though Aristotle’s approach to ethics remains teleological, his idea of natural right advances that humans, like any other natural beings, have natural ends and that whatever satisfies them is to be considered naturally good. He speaks of happiness (*eudaimonia*) to designate the highest human good in terms of well-being rather than the feeling of contentment. Darwin will later similarly mention the Greatest Happiness Principle and the importance of reason, habits and natural instincts. Though Aristotle emphasizes in *Nicomachean Ethics* the importance of human reason and philosophical contemplation to perfect happiness, in *Eudemian Ethics* he describes it as the harmonious exercise of intellectual and moral capacities.¹²⁵

Although much separates Darwin’s thoughts from those of Aristotle, some common points that emanate from their conceptions of human moral sense confirm that Darwin’s ideas of natural laws belong to a much wider and older conception. Darwin in his theory of evolution supported some of Aristotle’s insights on human nature and politics, though they differ on one major aspect. The question of teleological purpose and Darwinian moral genesis will later be

¹²¹ ARNHART, Larry, “Darwinian Conservatism as the New Natural Law”. *The Good Society*. Penn State University Press, Vol. 12, N°3, 2003, pp. 14-19, pp. 14-15.

¹²² Quoted from WARD, Julie, K., “Two Conceptions of *Physis* in Aristotle’s *Ethics* and *Politics*”. [presented at] Second Annual Stephan Humphries Philosophy Conference. University of Louisville, 2002. http://www.siue.edu/EASTASIA/Ward_022503.htm#_ftn1 (accessed 25/02/2020)

¹²³ *Ibid.* Quoted from WARD.

¹²⁴ Notably, the place of nature in Aristotle’s *Ethics* and *Politics* seems to reverse from his accounts of nature in more scientific works.

¹²⁵ *Op.cit.* WARD, “Two Conceptions of *Physis* in Aristotle’s *Ethics* and *Politics*”.

re-visited for further study in a subsequent section, notably on questions of moral freedom. Although I will not linger much on other common points that may be found with other natural law theories, for it is subject-matter for another research, I must nonetheless pursue on this path, in a descriptive nature, though not to the same extent, to further prove a coherence of Darwinian morality to the history of natural law and therefore to traditional precepts.

Taking on the Greek tradition of Natural Law, Roman thinkers, such as Ulpian or Cicero, also used of natural laws to foster ideas.¹²⁶ Afterwards, during the Medieval era, natural law was capitalized by the Church and used to promote a divine character to it. Thirteenth-century philosopher Thomas Aquinas (1224-1274) stressed the co-existence of divine law, natural law and human law.¹²⁷ By the seventeenth century, with the rise of freethinking, philosophers such as Hugo Grotius (1583-1645) freed natural law from theology while Thomas Hobbes broke with some of natural laws' original conception. Hobbes denied the natural sociability of humans by asserting that human societies are formed through social learning – that is education – while animal societies are founded upon natural instincts: "man is made fit for society not by nature but by education".¹²⁸ He fostered a materialistic view in which humans, through political order, transcend and conquer nature. He was later seconded in his break by Emmanuel Kant from Aristotelian tradition of natural law who emphasized on the duality that exists between animals and humans in regards of culture, in which by forming it, humans freed themselves from the supremacy of natural law.¹²⁹ Many others used the concepts of natural law, though discussing and corrupting its traditional form, to foster modern principles among which is John Locke (1632-1704), who stressed the incompatibility between parental care and infanticide to argue that morality cannot be rooted in human nature but was rather an artificial product of culture. Therefore, both Locke and Hobbes advanced that humans are naturally neither social nor moral.¹³⁰ Not to mention his conception of human mind as a tabula rasa – a blank sheet – which denies any innate propensities to humans and attributes everything to habits

¹²⁶ Here can be mentioned Roman jurist Ulpian (170-223) who condemn incest by declaring that "Natural right is that which nature has taught all animals", quoted from *op.cit.* ARNHART, "Darwinian Conservatism as the New Natural Law". p. 15. Cicero (106-43 B.C.) took a turn at Natural Law to foster explanation of human moral sentiments, quoted from *Op.cit.* MACKINTOSH. p. 186.

¹²⁷ He defended certain Christian practices such as marriage by justifying it to be part of human natural law as it satisfies human natural instincts. He wrote that "all those things to which man has a natural inclination, are naturally apprehends by reason as good, and consequently as object of pursuit, and their contraries as evil, and objects of avoidance". AQUINAS, Thomas, St, *Summa Theologica: First Part of the Second Part* [1485]. Ed Anthony Uyl. Canada: Devoted Publishing, 2018, p. 391.

¹²⁸ HOBBS, Thomas, *De Cive* [1642]. Ed. Sterling P. Lamprecht. New York: Appleton-Century-Crofts, 1949, p. 22.

¹²⁹ *Op.cit.* ARNHART, "Darwinian Conservatism as the New Natural Law". p. 15.

¹³⁰ *Op.cit.* ARNHART, *Darwinian Natural Right: The Biological Ethics of Human Nature*. p. 119.

and experiences. Those rather selfish theories of moral system advanced by Locke and Hobbes are opposed by Scottish philosophers such as David Hume, Adam Smith and Francis Hutcheson, whom we know have had a direct influence over Darwin's ethical theories during his 1838 researches and especially his study of Mackintosh.¹³¹ David Hume defended that even though politics may seem artificial, it nonetheless arose from nature's support: "The utmost politicians can perform, is, to extend the natural sentiments beyond their original bounds; but still nature must furnish the materials, and give us some notion of moral distinctions".¹³² Adam Smith showed that although reason may be crucial to the construction of morality rules, the feelings which emanate from any action finds their root in nature as to him, "nothing can be agreeable or disagreeable for its own sake, which is not rendered such by immediate sense and feeling".¹³³

Darwinism proves some common ideas with the conversations above on moral sense and natural law. Darwin's theory of moral sense tends to revive Aristotle's position by scientifically proving humans are social and political animals by nature. In the same way, Darwin testifies on Hume's behalf by verifying that human moral sense is endowed by nature. Here is what Arnhart writes about this point:

Like Aristotle, Aquinas, Smith, and Hume, Darwin saw that one of the primary traits of the human species was parental care of the young, not only to provide for their physical survival and growth but also to instill in them the habits and knowledge necessary for living in complex human societies.¹³⁴

In the same manner, by validating and reviving the Aristotelian tradition of natural law, Darwin denies Hobbes' modernist assumptions that through culture and reason, humans transcended their animality. As Arnhart puts it, "Darwinian natural rights is not only Darwinian but also Aristotelian and Humean" but much more importantly that "much of conservative social thought has been devoted to supporting the natural law tradition of Aristotle, Aquinas, and Hume as an alternative to the cultural relativism of Hobbes, Marx, and Freud".¹³⁵ Darwin's perseverance for decades in inquiring into morality as an innate human sense proves that his naturalistic approach is embedded in the tradition of moral philosophy, thus is part of the conservative tradition as well.

¹³¹ *Op.cit.* ARNHART, "Darwinian Conservatism as the New Natural Law". p. 15. *Supra.* p. 16.

¹³² HUME, David, *A Treatise of Human Nature*. London: John Noon, 1739, p. 500.

¹³³ *Op.cit.* SMITH, *The Theory of Moral Sentiments*. p. 470.

¹³⁴ *Op.cit.* ARNHART, "Darwinian Conservatism as the New Natural Law". p. 15.

¹³⁵ *Op.cit.* ARNHART, ARNHART, *Darwinian Natural Right: The Biological Ethics of Human Nature*. p. 69., & "Darwinian Conservatism as the New Natural Law". p. 16.

John McGinnis explains that “a Darwinian politics is a largely conservative politics” in as much as:

[c]onservatism will certainly be easier than liberalism to integrate with evolutionary biology. The constraints of our biological nature explode the most persistent delusion of the Left: that man is so malleable that he can be reshaped or transformed through political actions.¹³⁶

Tradition wants that leftists hold a utopian view of humankind, one in which humans can be perfected through rationality. By virtue of their opposition, conservatives bear a realistic vision of human imperfectability, thus legitimizing human evil by nature. An imperfect human nature makes for limited beings in all of their abilities that cannot be entirely improved by any external agencies for they are constrained by their own nature. Darwin supports this position as he suppressed, in his monistic and reductionist materialism, any transcendental hopes in favour of a world in which human morality, laws and freedom are hereditarily determined by the unique laws of nature. Nevertheless, Darwin’s scientific legitimacy also validates a socialistic purview since many see that human evolution allows them to liberate themselves from biological constraint so much as Darwin himself speaks of the lessened power of natural selection in civilized societies. Yet, the idea of liberty is rightfully conceptualized by both sides, as leftists tend to look upon reason to liberate, while conservatives rely on moral sense and traditions. In this part, I will focus on the conservative idea of ordered liberty – that is a polity in which societal welfare and personal freedom are balanced – and the fundamental conservative emphasis of moral sense for order.

Arnhart points out that “Darwinian conservatism explains the condition for human liberty as arising from spontaneous order of human nature and human custom and from the deliberate order of human reason”.¹³⁷ All three components hold fair position, and none takes over the other. Because, as he explains, conservatives view the arising of liberty through the mutual adjustment of individuals acting for the greater benefit without any central authority. Darwin advanced that all living organisms evolve spontaneously through the mechanism of natural selection and heritable variations, without a designer. As social animals, humans have social instincts which led them to act on sympathy towards others and are affected by shame and praise. Humans have also evolved into intellectual beings capable of reflecting retrospectively, learning through habits and deliberating on their social instincts and customs. Therefore, to Darwin, morality is both issued from spontaneous order – undirected order – and deliberate order. As human morality has risen spontaneously, so has human culture, as customs

¹³⁶ Quoted from ARNART, Larry, “Introduction”. *Darwinian Conservatism: A Disputed Question*. Ed. Kenneth C. Blanchard Jr. Exeter: Imprint Academic, 2015.

¹³⁷ *Ibid.* “Chapter 1: Three Sources of Ordered Liberty”.

are developed through social instincts themselves issued from random variation and natural selection. There was no intention behind the development of culture, it just happened through random natural processes.¹³⁸ However, once humans reached cultural levels, the social selection of customary traits happened much faster than natural selection; Darwin believed that some customs would become inheritable through education. This is where the problems start as many would believe that what is not naturally inherited, such as cultural evolution, is not biological. In this view, human complex social order is the sole product of rational deliberation – that is at some point human reason surpasses the effects of natural selection and everything can be planned without the random unintended consequences. Such is the utopian view of leftists who claim that humans can be perfectible thanks to rational knowledge.

One option to this dilemma would be to prioritize customs over reason and nature. Indeed, conservative Friedrich Hayek considers that “what had made men good is neither nature nor reason but tradition”.¹³⁹ Reason and instincts could not have recognized the benefits of good without having been accustomed to it first. Hayek does not deny the role of both reason and instincts but attaches more weight to customs and traditions in view of social construction. Arnhart disagrees utterly and argues that “it would be mistake to try to reduce morality or social order to one of these three without the others, because each is necessary but not sufficient”. Morality needs natural moral instincts to arise, natural intellectual capacities to comprehend and modulate, and customs to integrate. Shaped by natural selection, moral sense, as explained in the previous section, is developed through social customs and deliberated on to stimulate further customary norms. By doing so, Hayek also promotes cultural relativism while ignoring the role played by reasoned reflections.¹⁴⁰

This “trichotomy of order”, as Arnhart names it, is fundamental to the fabric of social construct as well as to Darwinian conservatism because relying on traditions also means rational judgements of these traditions in order to act in the interest of the community.¹⁴¹ Without the faculty of reason, there is no deliberation. Humans are constrained by nature to fulfil their desires, therefore human customs are also constrained by nature, and human reason is constrained by human customs and human nature, themselves constrained by the natural need to satisfy human natural desires. From a conservative standpoint, Arnhart explains that:

¹³⁸ We will see further in this study that Darwin also spoke of nature as having the purpose of creating moral humans. Darwin’s double standard on this matter is precisely what allows his theory to admit a continuity to broader moral theories. I will show how he reconciles both conservative and progressive thinking.

¹³⁹ *Op.cit.* ARNHART, *Darwinian Conservatism: A Disputed Question*. “Chapter 2: The Moral Sense”.

¹⁴⁰ *Ibid.* “Chapter 1: Three Sources of Ordered Liberty”.

¹⁴¹ “Trichotomy of orders” refers to morality, reason and customs.

[f]or a society of ordered liberty to succeed, it must satisfy the desires of human nature as shaped by genetic evolution, it must be sustained by the customs of human history as shaped by cultural evolution, and it must be promoted by the judgements of human reason as shaped that constitute our universal human nature. If good is the desirable, then we can judge social practices by how well they satisfy the full range of these natural desires.¹⁴²

Darwin's explanation of human moral sense is in adequation with conservatives' idea of an ordered liberty, especially as moral judgements are motivated by natural desires, which are rooted in human nature.

Moral values are upheld by traditionalists and are inherent to the thoughts of conservatives. Arnhart reminds us how the British and Scottish Enlightenments, in the name of Adam Smith, Edmund Burke and others, have strengthened the conservative idea of moral sense. He explains that conservatives believe human moral sense is also expressed in a trichotomy: in human moral sentiments or emotions, in human moral traditions and in human moral judgements – a point confirmed by Darwin, which stands as further proof of his conservative moral theory.¹⁴³ This is a crucial distinct position between leftists who claim human morality is rooted in the abstract reason while conservatives hold, like Darwin, that human morality is expressed by the trichotomy mentioned above.

Adam Smith, in his 1759 *Theory of Moral Sentiments* divided his works with some of the following titles in chronological order:

Of Sympathy; Of the Pleasures of mutual Sympathy; Of the Manners in which we judge of the Propriety or Impropriety of the Affections of other Men, by their concord or dissonance with our own; Of the Passion which takes their origin from the Body; Of those Passions which take their origin from a particular turn or habit of the Imagination; Of the sense of Justice, of Remorse, and of the consciousness of Merit; Of the utility of this constitution of Nature; Of the Influence of Customs and Fashion upon Moral Sentiments; Of the Character of the Individual so far as it affects his own Happiness; or of Prudence; Of the Order in which Individuals are recommended by Nature to our care and attention; Of the Order un which Societies are by Nature recommended to our Benevolence; Considerations concerning the First Formation of Languages, &c.¹⁴⁴

Needless to say, Smith's account of the origin of moral sense is in complete adequation to that of Darwin:

Thought reason in undoubtedly the source of the general rules of morality, and of all the judgements which we form by means of them; it is altogether absurd and unintelligible to suppose that the first perceptions of right and wrong can be derived from reason [...] nothing can be agreeable or disagreeable for its own sake, which is not rendered such by immediate sense and feeling.¹⁴⁵

¹⁴² *Op.cit.* ARNHART, *Darwinian Conservatism: A Disputed Question*. "Introduction".

¹⁴³ *Ibid.* "Chapter 2: The Moral Sense"

¹⁴⁴ *Op.cit.* SMITH, pp. v-x.

¹⁴⁵ *Ibid.* p. 470.

While humans' capacity to reason allows them to deliberate and judge actions for the good of the community, it does not however produce the feelings which are felt from desirable actions. If Smith's considerations on human moral sense are considered as an exposition of conservative thinking, so are Darwin's, as he explained the emergence of moral rules first on the basis of social instincts and feelings of approval and disapproval. According to David Hume, in a letter from the 28th of July 1776, Edmund Burke was so impressed by Smith's theory that he reviewed it favourably in the *Annual Register* and recognized his ingeniousness:

The author [Smith] seeks for the foundation of the just, the fit [...] in our most common and most allowed passions, and making approbation and disapprobation the test of virtue and vice, and showing that these are founded on sympathy, he raises from this simple truth one of the most beautiful fabrics of moral theory that has perhaps ever appeared.

Burke shares the views of Smith and acknowledged that moral sense is "in all its essential parts just and founded on truth and nature".¹⁴⁶ An opinion seconded by Mackintosh who saw the high value of the book for "the variety of explanation of life and manners which embellish".¹⁴⁷ Darwin later provided sufficient proof to validate this "most beautiful fabrics of moral theory that has perhaps ever appeared". Edmund Burke did not agree only with Smith's idea of moral sense arising from moral sentiment and moral reasoning, he also disagreed with one of the greatest traditional breaks of European history, namely the French Revolution. His conservative ideas will be reflected in Darwin's moral theory.

Burke, in his 1790 *Reflections on The Revolution in France* declares that he appraised himself for loving "a manly, moral, regulated liberty" but that in light of the French Revolution, he would have to consider all the circumstances before giving it "praise" or "blame".¹⁴⁸ To Burke, the French pursuit for freedom is based on the "nakedness and solitude of metaphysical abstraction" of liberty.¹⁴⁹ Acting solely upon reason to gain freedom is acting on abstract liberty or theoretical liberty. In *A Letter to a Noble Lord*, he explains that liberty should be "inseparable from order, from virtue, from morals, and from religion" and should be "neither hypocritically nor fanatically followed".¹⁵⁰ In contrast, he praises the American Revolution as he considers it to have acted on liberty "according to English ideas, and in English principles".¹⁵¹

They find, on all sides, bounds to their unprincipled ambition in any fixed order of things. But in the fog and haze of confusion all is enlarged, and appears without any limit. When men of

¹⁴⁶ RAE, John. *Life of Adam Smith*. London and New York: MacMillan &co, 1895, pp.132-133.

¹⁴⁷ *Op.cit.* MACKINTOSH. p. 186.

¹⁴⁸ BURKE, Edmund, *Reflections on the Revolution in France*. London: Printed for J. Dodsley, in Pall-Mall, 1790, p. 7.

¹⁴⁹ *Ibid.* p. 7.

¹⁵⁰ BURKE, Edmund, *A Letter to a Noble Lord* [1796]. Ed. Albert H. Smyth. Boston: Ginn & Company Publishers, 1903, p. 12.

¹⁵¹ Edmund Burke, *Speech on Conciliation with the American Colonies Delivered in the House of Commons March 22, 1775*. Ed. William I. Crane. New York: D. Appleton and Company, 1900, p. 72.

rank sacrifice all ideas of dignity to an ambition without a distinct object, and work with low instruments and for low ends [...] Does not something like this now appears in France? Does it not produce something ignoble and inglorious? A kind of meanness in all prevalent policy? A tendency in all that is done to lower along with individuals all the dignity and importance of the state? [...] Other revolutions have been conducted by persons, who whilst they attempted or effected changes in the commonwealth, sanctified their ambition by advancing the dignity of the people whose peace they troubled. [...] they aimed at the rule, not the destruction of their country.¹⁵²

He draws a fundamental distinction between the practical liberty enjoyed by people under the British Constitution and the revolutionary abstract liberty praised by the French citizens. To him, there is no point in trying to transcend human nature through theoretical endeavour as what is desirable to humans is inseparable from human nature. The errors of the French were to consider the idea of freedom detached from its practical implications. The disorderly conducts of the French to attain unlimited liberty is faulty as he says “liberty too must be limited in order to be possessed”.¹⁵³ The French could not have secured the benefit of liberty by solely relying on rational designing while abolishing traditional fundamentals in politics, morality and religion. “Good order”, he says, “is the foundation of all good things”.¹⁵⁴ That is why, to him, the American Revolution is founded upon a realist idea of liberty whereas the French Revolution and its partisans relied on a rationalist utopianism. The British revolutionists understood that the desire for freedom is the result of a spontaneous order of social customs, and therefore cannot break with customary traditions. French revolutionists, on the other hand, discarded all the traditional customs which could not be rationally explained. The rationalists believed that moral sense was not rooted in moral sentiment but was the result of rational reflection on right and wrong. Reason alone to them can explain the principle of morality.

As Darwin later explained, humans have moral sense to guide their actions because they are naturally endowed with instinctive moral sentiments. No aspect of human nature should be ignored as they are all necessary but not enough. Moral reasoning needs moral sentiments and moral traditions to help judge on the moral value of an action. And more importantly what is desirable is first felt before being accustomed to or judged. Sentiments allow humans to recognize what is good and what is wrong. Reason alone cannot explain the principle of morality, therefore, speculative reasoning on abstract principle is erroneous. As Arnhart notes, both Burke and Smith “thought that reason in moral judgement was a matter of prudence or practical wisdom guided by moral sentiment rather the abstract logic of deduction from simple

¹⁵² *Op.cit.* BURKE, *Reflection on the Revolution in France*. pp. 69-70.

¹⁵³ BURKE, Edmund, *A Letter to the Sheriffs of Bristol* [1777]. Ed. James Hugh Moffatt. New York: Hinds, Noble & Eldredge, 1904, p. 42.

¹⁵⁴ *Op.cit.* BURKE, *Reflection on the Revolution in France*. p. 359.

principles".¹⁵⁵ Darwin explained the fall of the Greek civilization and the Spanish lateness in progress as a result of an over-appreciation of one component over the other, that is here, the supremacy of rational laws in disfavour of moral laws.¹⁵⁶

In Darwin's view, humans gradually developed moral customs through education, habits and imitation. They recognized the value of some customs through their moral instincts, experience and rational judgements. Humans have evolved to feel moral emotions while seeking social approbation. They also evolved to remember past actions and emotions and to reflect retrospectively on them, personally and through language. Both their emotions and high cognitive capacities led them to form customs that would benefit their social desires. Therefore, moral sense is not the sole product of reason but the combination of moral sentiments and moral judgements. Social and moral order is the joint outcome of the natural order, the customary order and the rational order. This is where he confirmed Aristotle's theory of Natural Law.

Darwin also stressed the importance of spontaneous order in the social order, by which he means social order is the result of the undirected natural selection. However, to improve the social order based on what is good and what is wrong, Darwinian ethics require that moral sentiments, moral customs and moral judgements be taken into account. Moral judgements did not arise alone, it required moral sentiments for humans to feel emotions and needed customs for humans to value an action. Both human nature and culture evolve to shape the moral sentiments which guide moral and political judgements. There is a difference between cultural evolution and biological evolution; however, both are simultaneously needed as it is human instincts that allow humans to learn from their culture. All three components are intertwined with each other and none will suffice without the other. In a Darwinian purview, customs are important, though not sufficient. This is why Darwin mentioned that the combination of social instincts, reason, religious feelings, instructions and habits form human moral conscience. Humans are not born, as Locke suggested, a blank paper. Humans at birth come with heritable traits that allow them to form habits and deliberate. They are social animals, cultural animals and rational animals. And social order can be considered spontaneous and deliberate. But because of the spontaneous nature of human origin, there is no possibility for perfectibility as all the agents are not malleable, for natural selection is supposedly undirected. Some traditionalists emphasized the effect this materialism on traditional religious values. It is important to add here that Darwin did attest to the utility of religious feelings to the emergence of moral sense, and that, although Darwin denied the existence of an intelligent design, he

¹⁵⁵ *Op.cit.* ARNART, *Darwinian Conservatism: A Disputed Question*. "Chapter 2: The Moral Sense".

¹⁵⁶ *Supra.* p. 36.

nonetheless explained religious feelings as a creation of human mind. In this way, the moral values that ensue from religious scriptures are actually, like any other moral value, the product of moral instincts. Though Darwin rejected any form of religious creator in nature, he did not reject the moral precepts held in religions.

In simpler terms, Arnhart advances that conservatives agree with the idea of a spontaneous and deliberate social order which is the product of a trichotomy of orders, and that all three orders are necessary but not sufficient. Conservatives hold moral sense as fundamental for the moral order, and not just moral judgements. Darwin promotes the same, therefore he holds a conservative view of human moral and political sense. Other conservative views are confirmed by Darwin's moral theory such as the traditional order of sex, marriage and family, which he proves are innate human propensities by inquiring on sexual mating, sexual identity and parental care. A point disputed by leftists who believe that these human traditions are actually socially constructed and therefore can be altered by social engineering.¹⁵⁷

To prove a continuity in Darwin's moral theory, I have argued that Darwinism can admit a continuity with conservative idea. It does not however induce that it negates a progressive, leftist or liberal lecture of Darwin's moral theory. It simply proves that Darwinism represents a continuity in Victorian thinking by proving the truth, and that the truth may involve a mixture of several ways of thinking. Moreover, on the wrongful association of Darwin's ethical theory to Social Darwinism as of proof of Darwin's conservatism, it must be noted that many leftists agreed with the ideas of Social Darwinism as the latter also served their purposes. Thus, saying that Darwinism denies morality is unwarranted by Darwin's lifetime regard for human morality and by the continuity that exists between Darwin's moral theory and broader moral theories. Darwin, although not an ethical theorist, produced a theory in which morality is described as a natural human sense and which confirmed the naturalistic tradition in moral philosophy from Aristotle to Hume.

Ultimately the epistemological break that is attributed to Darwin mainly concerns religion, for he has shown that humans' moral capacity surpasses animals' to an immense degree, thus not taking out humans' special place in the world, but only conferring to humans a lower origin. The sole and only point that argues in favour of a break is the scientific proof of a materialistic human nature. But in any case, does it mean that humans' special place is downgraded. On the contrary, without the intervention of divine agency, humans arose from the bowels of animality to world domination by their own means given by natural selection.

¹⁵⁷ *Op.cit.* ARNHART, *Darwinian Conservatism: A Disputed Question*. "Introduction".

There is a continuity in Darwin's mind, a continuity within the history of biology, a continuity within the history of natural law, a continuity within the history of moral laws. Darwin only ended millennia of doubt. He found sufficient evidence to prove the veracity of some materialistic viewpoints against those of creationists. However, he believed in the pacific co-existence of the two, as when asked about his religious conviction, he replied the following:

It seems to me absurd to doubt that a man may be an ardent Theist & an evolutionist. [...] In my most extreme fluctuations I have never been an atheist in the sense of denying the existence of a God.— I think that generally (& more and more so as I grow older) but not always, that an agnostic would be the most correct description of my state of mind.¹⁵⁸

As Darwin's theory seems to answer all the ills of the intellectual and philosophical world, it is not surprising that today many are able to link his name to anyone. For instance, Voltaire's ideas, who at first sight have little to do with Darwin's theory, are compared to him by Gerhardt Stenger who proves that Voltaire, precursor to Denis Diderot (1713-1784), had already set on the path for Darwin to later be inspired by Diderot; Diderot being considered a precursor to Darwin as well.¹⁵⁹ It is precisely because Darwinism is so deeply anchored within the histories of human knowledge and moral theory and because it proved such a continuity that any author or thinker can be related to him without any direct influence. Thus, there is a continuity in Darwinism and as far as its epistemological break is concerned, it seems only of relevance due to the scientific justification of his theory, not the ideas that he advanced.

Though Patrick Tort explains that there is no philosophical exercise in Darwinism as it does not search for the truth but admits it with firm conviction, Darwin articulated philosophical theories and ended the search for the truth. Although the latter proposition is debatable, it nonetheless proves that Darwinism is the result a long history of ideas and that it is undoubtedly the expression of continuity within human history of knowledge, either biological, moral or political. Now that I have hopefully proved a continuity in Darwin's ethical mind since his early years, a continuity of Darwinism within human history of moral theories, a continuity of Darwinism within traditional ideas and progressive ideas, I will, in a second chapter, consider some of the responses of his contemporaries and explore more profoundly how Darwin unites old dichotomies and converges all human affairs under a single natural order.

¹⁵⁸ DARWIN, Charles, R., "Letter n°12041". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-12041.xml> (Accessed 25/02/2020) Letter from Darwin to John Fordyce on the 7th of May 1879.

¹⁵⁹ STENGER, Gerhardt, "De Voltaire à Darwin : Réflexions autour de deux anniversaires". *Raison présente*. Vol. 172, 2009, pp. 71-80. Patrick Tort speaks of Diderot as one possible precursor to Darwin.

II. Darwinian Ethics: Nature & Transcendence

In accordance with the previous conclusion, it is now possible to say that Darwin's moral theory has its place within the much larger group of moral theories. Darwin's ideas did not emerge from his findings, but rather, his scientific discoveries validated already existing concepts regarding human morality. By investigating his early notebooks, it is obvious that the theory of evolution emerged from a long dialogue held by Darwin with himself, fluctuating between his naturalistic enthusiasm and his century's moral dilemmas. Although Darwinism became a symbol of modernism and progress as it allowed humans to emancipate from outdated superstitions, it was far from threatening conservative values. Indeed, it also retained some of humanity's traditional fabric which allowed it to be wholesome at some level. With careful considerations, the line which separates modernity from tradition is blurred by the wide purview of Darwinism. This way, Darwinism proved how ambivalent and fitting it was to its century. To strengthen the main thesis of the study – Darwinian morality admits a global continuity – this second chapter will mainly focus on the period starting in 1871 and on the consequences that ensued the publication of *The Descent*. This will allow me, on the same line, to argue in favour of a continuity as Darwin's ideas may have been used to strengthen and validate existing moral theories. The aim is to highlight the length of Darwin's scientific legitimacy on human morality to find a path to enter nineteenth-century ethical discussions. First, I will address some of the reactions that followed the publication of *The Descent*. Then, I will inquire more intensively on the reproach made to him to prove how his theory unites century-old dichotomies, creating in the process a natural continuity in human moral affairs. Finally, I will focus on the link between Darwin, Darwinian morality and teleology to highlight the purpose of morality. Overall, this chapter will revolve around the results of Darwin's revelation on morality, if any.

The Origin of Species is the result of twenty years of secret labour. Mainly, this delay is associated to Darwin's fear of persecution and ridicule given that his theory promotes materialism in nature. He waited decades before disrupting the scientific world with his new revelations and was almost forced into publishing them. Had Wallace not come to the same conclusion as him, Darwin may have stayed silent for many more years. Who knows if he would even have published his theory? After all, he knew from his predecessors that any mention of evolution would have been met with fierce retributions. As the circumstances required it, he published his findings in 1859 and as he had anticipated, many controversies and criticism befell him. His theory was perceived as a threat to the Victorian society and its most upheld values. When came the awaited and most desired time for the human question, thankfully, this

time, he was prepared. Though I have already explained the events prior to the publication of *The Descent*, one point must be further discussed. Darwin's lifetime of scientific work and discoveries gave him renown and respect in the scientific community. His words, especially after the publication of *The Origin*, were no longer taken lightly. Meanwhile, during his years, Darwin created for himself a personal and professional network which would not only provide him with the necessary support but more importantly, which allowed him to defend himself and to be defended. He was able to discuss his ideas and findings in the hopes of clarifying any given point. He did not stand alone for he had convinced many of the truthfulness of his words.

Just like its twin book, the publication of *The Descent* was delayed for eleven years, yet this time, better than ever, Darwin learned to use criticism in his favour. He was accustomed to receiving criticism open-handed and often corresponded with those he thought worthy of his attention. As a result, more than five hundred letters are related to *The Descent*. It enabled him to improve his arguments through data and constructive criticism. For instance, in January 1870, he sent a part of his manuscript of *The Descent* to his daughter Henrietta Emma Darwin to review. He welcomed any correction or criticism: "the more time you can give up for deep criticism or corrections of style, the more grateful I shall be".¹⁶⁰ Darwin learned to use criticism at his advantage; *The Descent* is the result of a large number of corrections and additions, to the point that even unsolicited comments and criticism may have been helpful.

However, the ideological dimension of debates on Darwinism was so wide and diverse that it is challenging to decipher how much of Darwinism had been taken to Darwin's words and not misunderstood or reinterpreted. Having been branched out in various directions and for various purposes, almost every use of evolutionism shows some part of Darwin's words accepted while others rejected. While it might be the reason behind its success, it also shows how multivalent his society was as Darwinism had easily been combined to many oppositional views. As Darwin's theory on morality had not been explored in its entirety, thus, all use, rightful or otherwise, only concerns part of his writings. Darwin's influence on his society might appear *wide* and *scarce* at the same time. We may see how Darwin's theory invaded his society and, at the same time, how it was manipulated to fit discourses. Especially as Darwin rarely initiated public debates since he rather directly addressed the concerning party: "it is an immense relief to me to be able to say that I never write reviews".¹⁶¹ A statement which suggests that to enjoy an accurate view of Darwin's thoughts, it is necessary to outline his private letters.

¹⁶⁰ DARWIN, Charles, R., "Letter n° 7124". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-7124.xml> (Accessed 23/03/2020)

¹⁶¹ DARWIN, Charles, R., "Letter n° 7765F". *Darwin Correspondence Project*.

1. Victorians in Reaction to Natural Ethics

When Darwin published *The Descent of Man*, he was “astonished” by how rapidly his book sold out.¹⁶² Indeed, the book received immediate success and twenty-five hundred copies were sold almost instantaneously, requiring another five hundred to be printed. Darwin’s name once again invaded all discussions from every circle as an anonymous reviewer from the *Edinburgh Review* wrote the following statement:

Since the publication of the ‘Origin of Species’ in 1859, no book of science has excited a keener interest than Mr. Darwin’s new work on the ‘Descent of Man’. In the drawing-room it is competing with the last new novel and in the study it is troubling alike the man of science, the moralist, and the theologian. On every side it is raising a storm of mingled wrath, wonders, and admiration. In elegance of style, charm of manner, and deep knowledge of natural history, it stands almost without rival among scientific works;¹⁶³

However, Darwin had rightfully predicted to Joseph D. Hooker (1817-1911) in January 1871 that he “shall be well abused” by reviewers.¹⁶⁴ He already knew how enflamed the prejudices would be against him, yet it turned out better than expected. As usual, Darwin did his best to promote his book by suggesting to a large number of journals to publish reviews and by sending copies to those from whom he wished an opinion. He also relied on the criticism of his friends, collaborators and family for he knew that they would not wish his theory, or even science, harm. He inspired many to write him with small contributions or corrections. The book was so heavily translated that Darwin also gained the favour of many foreign men of science. The following section will focus on the criticism that engaged with his explanation of human morality.

Journal reviews and criticisms started to flood two months after the publication of *The Descent*. The initial response from his inner circle was friendly but with some reservations. The first complete review he received was from his cousin Hensleigh Wedgwood in March 1871.¹⁶⁵ He sent him a manuscript in which he discussed Darwin’s idea of social instincts. Darwin wrote back and shed light on a few of the aspects mentioned by Wedgwood.¹⁶⁶ He also received comments from Wallace who wished, like many of Darwin’s closest friends and family

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7765F.xml> (Accessed 29/03/2020) Letter from Darwin to Bates on the 22nd of May 1870, referring to when he was asked to comment on Wallace’s defection to Spiritualism.

¹⁶² DARWIN, Charles, R., “Letter n° 7608”. *Darwin Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7608.xml> (Accessed 29/03/2020) Letter from Darwin to John Murray on the 21st of March 1870.

¹⁶³ “Darwin on the Descent of Man”. *The Edinburgh Review or Critical Journal for July-October, 1871*. New York: Leonard Scott Publishing Company, Vol. 134, 1871, pp. 99-120, p. 100.

¹⁶⁴ DARWIN, Charles, R., “Letter n° 7448”. *Darwin Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7448.xml> (Accessed 29/03/2020)

¹⁶⁵ DARWIN, Charles, R., “Letter n° 7542”. *Darwin Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7542.xml> (Accessed 29/03/2020)

¹⁶⁶ DARWIN, Charles, R., “Letter n° 7560”. *Darwin Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7560.xml> (Accessed 29/03/2020)

relatives, to have clarity. Although Darwin's closest acquaintances remained generous and admiring toward him, they did not fully agree with him. Nonetheless, their comments allowed Darwin to explain his points better in the following editions of *The Descent*.

On a different note, the reviews Darwin received from the popular press were certainly less cordial and decidedly more mitigated. An anonymous reviewer from *The Times* commented that Darwin's views on mankind were undermining the foundation of the social order as he was prompting people to doubt "elementary principles of duty which are independent of all times and all circumstances".¹⁶⁷ This review considered that Darwin did a wonderful job in gathering observations but was unsatisfied by his attempt at explaining human morality. Distressed by this review, Darwin wrote to John Murray blaming it on miscomprehension.

I have no idea who wrote the Times Review. He has no knowledge of science, & seems to me a windbag full of metaphysics & classics, so that I do not much regard his adverse judgment, though I suppose it will injure the sale. Should you ever hear who wrote it, be so kind as to inform me.¹⁶⁸

To Darwin, and as proven in the previous chapter, traditions and culture are crucial to humans and their moral sense. An anonymous review, from the *Pall Mall Gazette*, struck Darwin to the point that he endeavoured to uncover the reviewer's identity. In this article, Darwin was criticized for his use of Mill's greatest happiness principle.¹⁶⁹ To him, Darwin misinterpreted Mill's theory as the reviewer explained that the greatest happiness principle is to be used as a standard to judge actions and not as a foundation. Deeply thankful for this insight, and for other remarks, Darwin wrote to the author who turned out to be John Morley, the editor of the journal:

As this note requires no answer I do not scruple to write a few lines to say how faithful and full a resumé you have given of my notions on the Moral Sense in the *Pall Mall*, and to make a few extenuating or explanatory remarks. How the mistake which I have made in speaking of greatest happiness as the foundation of morals arose, is utterly unintelligible to me [...]¹⁷⁰

As a result, in the next edition of *The Descent*, Darwin rectified his usage of Mill's utilitarianism as he wrote that most utilitarian philosophers considered the greatest happiness principle "as the standard, and not as the motive for conduct".¹⁷¹ Though I will not linger on the details regarding this event, it is an illustration of how Darwin made full usage of criticism. Darwin

¹⁶⁷ Anonymous reviews of *The Descent*. *The Times*. London: 8th April 1871, p. 5.

¹⁶⁸ DARWIN, Charles, R., "Letter n° 7680". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-7680.xml> (Accessed 29/03/2020) Letter from Darwin to John Murray on the 13th of April 1871.

¹⁶⁹ "The Descent of Man". *Pall Mall Gazette*. 1871, pp. 11-12.

¹⁷⁰ DARWIN, Charles, R., "Letter n° 7685". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-7685.xml> (Accessed 29/03/2020) Letter from Darwin to John Morley on the 14th of April 1871.

¹⁷¹ *op.cit.* DARWIN, *The Descent of Man*. p. 120.

even enlisted his son, William E. Darwin (1839-1914), to help him deal with it.¹⁷² However, some journal criticism did not please him as much as the one above. Among those, three stirred much in Darwin's mind: "The Descent of Man, and Selection in Relation to Sex. By Charles Darwin" from the *Quarterly Review*, "Darwinism in Morals" from *The Theological Review* by Frances P. Cobbe and, "Darwin on the Descent of Man" from *The Edinburgh Review*.

Starting from the least upsetting of the three, in 1871, Frances Power Cobbe published an article in the *Theological Review* in which she deplores Darwin's explanation of moral sense. For Cobbe, humans have a tendency to associate what is provable to machinery and not to God. Though she does not attack the entire body of Darwin's book, her main issue revolves around the egalitarian place Darwin gives to civilized humans and primitive humans. To her, the history of mankind is not linear, therefore, one single mechanism – natural selection – could not have produced moral sense. On discussing the question of repentance and its utility, she writes that

[i]t is no doubt a fact that, in the long run, Truthfulness contributes more than Lying to the Greatest Happiness of the Greatest Number. But to discover that fact needs a philosopher, not a savage. Other virtues, such as that of care for the weak and aged, seem little less capable, as Mr. Mivart has admirably shewn, of being evolved out of a sense of utility, seeing that savages and animals find it much the most useful practice to kill and devour such sufferers, and, by the law of the Survival of the Fittest, all nature below civilized man is arranged on the plan of so doing.¹⁷³

As long as the savage found utility in eating the weak among them, how could they have realized the evil behind it? How could these barbaric traditions and rites change since they are driven by the laws of natural selection and survival of the fittest? She concludes that "the transition from a sense of Utility to a sense of Moral Obligation seems to be one which has never yet been observed in human history". Once more, Darwin's explanation of moral sense rooted in animal instincts hits a wall. The dilemma which emanates from Darwin's moral theory is how to define right and wrong:

Hitherto we have believed that the human moral sense, though liable to sad oscillations under the influence of false religion and education, yet points normally to one true Pole. Now we are called on to think there is no pole at all, and that it may swing all around the circle of crimes and virtues, and be equally trustworthy whether it point north, south, east or west. In brief there are no such things as right and wrong; and our idea that they have existence outside our own poor little minds in pure delusion.¹⁷⁴

¹⁷² DARWIN, William, E., "Letter n° 7048". *Darwin Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7048.xml> (Accessed 10/04/2020) Letter from W. E. Darwin to Darwin in April 1871.

¹⁷³ COBBE, Frances, P., "Darwinism in Morals". *The Theological Review*. London: Williams & Norgate, Vol. 8, 1871, pp. 167-192, pp. 187-188.

¹⁷⁴ *Ibid.* p. 191.

Darwin associates what is right to what is useful. Cobbe denounces the idea that such views remove stability to moral norms, rendering moral sense aimless. As mentioned in the previous chapter, at best, what Darwin offers is a moral anthropology but not a set of moral values to follow. Then, by differencing societies in degrees with each distinct stage essential to progress, moral values of a given society can only be judged based on their utility according to the circumstances and the time. Since it is impossible to find a satisfactory criterion, there is no truth in moral sense. All moral values, in Darwinism, seem equivalent. This relativism is what is denounced here. There is not “one pole” to follow as every “pole” is equal to each other in terms of usefulness. There is no criticizing a value system, however revolting it may appear, as it may have been useful at some point to its society.

As for the reviewer from the *Edinburg Review*, as quoted previously, he starts his article by praising Darwin’s work and charms. However, he devotes his twenty-page review to point out how erroneous Darwin’s theory of moral sense is. To him, “if these views be true, a revolution in thought is imminent, which will shake society to its very foundation, by destroying the sanctity of the conscience and the religious sense; for sooner or later they must find expression in men’s lives”.¹⁷⁵ To him, Darwin’s theory of moral sense lacks proof and destroys the core of all human affairs:

Never, perhaps, in the history of philosophy, have such wide generalisations been derived from such small basis of fact. [...] Yet both authors [Darwin and Wallace] have upon the whole done good to science by making people think; and the results of that thought will be, in our belief, not blind acceptance of their views, but a realisation of the truth, that whatever the doctrine of evolution may be worth, so far as relates to man’s body, man’s intellect and moral sense are now, as they ever were, inscrutable from the point of view offered by natural history; and only to be comprehended from far higher considerations, to which, as a mere naturalist, Mr. Darwin has not attained.¹⁷⁶

The author of this review borrows his arguments from Wallace’s. Indeed, one of the major reasons why Wallace defected from Darwin’s theory was that he could not find sufficient basis in natural selection to explain the emergence of intelligence and morality in primitive humans. Although the author remarks that Wallace’s own explanation remains Darwinist at heart, he at least realized that human conscience could not be accounted for by natural selection. Though both his review and that of Cobbe might have strongly offended Darwin’s theory, both authors recognized the genius of Darwin. It was not the case for one pitiless reviewer from the *Quarterly Review*, who took it upon himself to destroy Darwin from bit to bit.

¹⁷⁵ *Op.cit.* “Darwin on the Descent of Man”. p. 100.

¹⁷⁶ *Ibid.* p. 120.

In the July and October issue of 1871, a forty-three-page review was anonymously published on Darwin's *Descent* in which the author speaks of "mingled feelings of admiration and disappointment". He praises Darwin for having explained what was "obscurely hinted" in *The Origin*.¹⁷⁷ However, he reminds the readers how in all scientific discoveries, there are two classes of thinkers: those who theorize and those who test. To him, at best, what Darwin produced was a theory which should only be given credit once tested. Additionally, and more strikingly, he accuses Darwin to have defected from his propositions made in *The Origin*. To him, Darwin's opinions on humans and moral sense are "distinct from, and even subversive of, the views he originally put forth". Darwin, by assigning "the laws of 'natural selection' to a subordinate position" actually abandoned his own theory.¹⁷⁸ He speaks of Darwin's dogmatism as he saw him acting in the manners of a theologian by asking his readers to *believe* in the general principle of evolution.¹⁷⁹ The existence of innate traits along with internal laws seems to be troublesome as it cannot be tested, only theorized, just like religious scriptures. On this point, the reviewer accuses Darwin to think like Wallace. He completely dismisses Darwin's association of instincts to moral sense:

Mr Darwin means by 'the moral sense' an instinct, and adds, truly enough, that 'the very essence of an instinct is, that it is followed independently of reason' (vol. i. p. 100). But the very essence of moral action is that it is not followed independently of reason. [...] If the 'social instinct' were the real basis of the moral sense, the fact that society approved of anything would be recognised as the supreme sanction of it. Not only, however, is this not so, not only do we judge as to whether society in certain cases is right or wrong, but we demand a reason why we should obey society at all; we demand a rational basis and justification for social claims, if we happen to have a somewhat inquiring turn of mind.¹⁸⁰

Here, the author evokes a popular notion that prevailed at the time. Even though at this point, many Victorians were keen to deny religious conventions, they still believed in the necessity of normative laws to define society. And even if natural laws seem to have been defended by Darwin, he did not describe them sufficiently for humans to rely on them. Once more, the reproach made to Darwin was the way he dealt with the notion of "wrong". How are we to condemn evil or barbarism when it simply represents primitive stage of evolution? The moral relativism that ensued from Darwin's theory of morality signifies that each society's moral norm stands equal according to the circumstances. In this respect, primitive practices cannot be condemned for nature is the sole entity responsible for these human evolutionary states. The reviewer seems to think that Darwin did not produce an authoritative scientific support to help

¹⁷⁷ "The Descent of Man, and Selection in Relation to Sex. By Charles Darwin, M.A., F.R.S., &c. 2 vols. London, 1871". *The Quarterly Review*. London: John Murray, Vol. 131, July & October 1871, pp. 47-89, p. 47.

¹⁷⁸ *Ibid.* p. 48.

¹⁷⁹ *Ibid.* p. 52.

¹⁸⁰ *Ibid.* pp. 80-81.

society. He argues that Darwin has injured his theory of natural selection rather than promoting it. Lastly, and more importantly, the main reproach addressed to Darwin is rather biased. The reviewer seems incapable of accepting Darwin's egalitarian position regarding human races. The reviewer's rejection is foreseeable as Darwin's theory demolishes ideas of European superiority:

Along with this truth, however, we find the assumption that he is *no more* than an animal – an assumption which is necessarily implied in Mr. Darwin's distinct assertion that there is no difference of *kind*, but merely one of *degree*, between man's mental faculties and those of brutes.¹⁸¹

The difference in degree and not in kind among humans is considered as an illustration of “non-progressiveness”.¹⁸² Indeed, Darwin showed that advancement can be achieved through education without differentiating civilized humans from primitives. All humans are endowed with the same social and moral instincts, therefore, the only component which makes the difference is environment. Civilized humans' favourable environment and education give them the advantage to progress and perfect their moral sense. Darwin promoted monogenism; different races of humans belong to the same species, the human species. In Darwin's explanation, the only difference is that civilized humans progress depending on a subordinate natural selection whereas primitive humans are still under the reign of the latter. This poses a profound epistemological dilemma. Overall, the author appreciates the clarity Darwin gave on the matter of humans along with the extensible facts and data brought forth. However, to him, Darwin's views changed drastically and while he attempted to strengthen his position, he ended by producing more confusions and distrust on the accuracy of his theory. To him, Darwin's findings elaborated in *The Descent* were substantial yet superficial.

Such hostilities conducted against Darwin could only have been the work of his great nemesis Catholic convert St. George Jackson Mivart (1827-1900), whose penmanship no one failed to recognize. Indeed, Darwin wrote to Wallace saying that “there is a most cutting Review of me in the Quarterly: I have only read a few pages. The skill & style make me think of Mivart. I shall soon be viewed as the most despicable of men”.¹⁸³ He spoke of it to John Murray as well: “Many thanks for your kind present of the Q. Review. I have read only a few pages; but I see it is a cutting article, & apparently worthy of M^r. Mivart's skill”.¹⁸⁴ Darwin defended

¹⁸¹ *Ibid.* pp. 87-88.

¹⁸² *Ibid.* pp. 75-76.

¹⁸³ DARWIN, Charles, R., “Letter n° 7858”. *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-7858.xml> (Accessed 09/04/2020) Letter from Darwin to Wallace in 12th of July 1871.

¹⁸⁴ DARWIN, Charles, R., “Letter n° 7863”. *Darwin Correspondence Project*.

his position by stating how Mivart would give “the commencement of a sentence or paragraph” and then proceed “by omitting the end” in order to alter his meaning. To him, Mivart was “cutting” him “into mince-meat”.¹⁸⁵ As a result, Darwin’s fervent defender, Thomas Huxley, apparently threatened to “‘pin out’ Mr Mivart, for his insolent attack on Mr Darwin.”¹⁸⁶ Mivart was a prominent zoologist and a protégé of Huxley. The extent of the discrepancies between him and Darwin upon human ancestry prevented them from any alliance. Due to his extensive and persistent criticism in January 1871, Darwin devoted a chapter entitled “Miscellaneous objection to the theory of natural selection” in his sixth edition of *The Origin of Species* to refute him. Most probably motivated by a consuming desire for revenge, Mivart wrote this unapologetic review in the *Quarterly*:

You never read such strong letters Mivart wrote to me about respect towards me, begging that I would call on him &c &c. Yet in the Q. Review he shows the greatest scorn & animosity towards me; & with uncommon cleverness says all that is most disagreeable.— He makes me the most arrogant, odious beast that ever lived. I cannot understand him. I suppose that accursed religious bigotry is at the root of it.— Of course he is quite at liberty to scorn & hate me, but why take such trouble to express something more than friendship It has mortified me a good deal.¹⁸⁷

As his letters show, Darwin became extremely agitated by Mivart’s review. The example of Mivart is of great importance as very few opponents had fuelled Darwin’s wrath as he did. Moreover, his review seems to be a recollection of every possible criticism that can be made to Darwin. Hooker and Huxley both believed that this article will “no doubt” have an “effect on the public”.¹⁸⁸ To control the damages, Darwin was asked to publish a “glossary of scientific terms”.¹⁸⁹ Meanwhile, Huxley attacked Mivart’s *On the Genesis of Species* (1871) in an article in the *Contemporary Review* to Darwin’s delight. Afterwards, Darwin told him how satisfied he was by how Huxley “smash[ed] Mivart’s theology”. Darwin continued by stating the

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7863.xml> (Accessed 09/04/2020) Letter from Darwin to John Murray on the 13th July 1871.

¹⁸⁵ DARWIN, Charles, R., “Letter n° 7865”. *Darwin Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7865.xml> (Accessed 09/04/2020) Letter from Darwin to Chauncey Wright on the 13th and 14th of July 1871.

¹⁸⁶ HOOKER, Joseph, D., “Letter n° 7945”. *Darwin Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7945.xml> (Accessed 09/04/2020) Letter from Hooker to Emma Darwin on the 15th of September 1871.

¹⁸⁷ DARWIN, Charles, R., “Letter n° 7949”. *Darwin Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7949.xml> (Accessed 09/04/2020) Letter from Darwin to J. D. Hooker on the 16th of September 1871.

¹⁸⁸ HOOKER, J., & HUXLEY, T., “Letter n° 7953”. *Darwin Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7953.xml> (Accessed 09/04/2020) Letter from Hooker and Huxley to Darwin on the 20th of September 1871.

¹⁸⁹ DARWIN, Charles, R., “Letter n° 7988”. *Darwin Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7988.xml> (Accessed 09/04/2020) Letter from Darwin to John Murray on the 6th of October 1871.

following: “I felt mortified by the accusation of bigotry, arrogance, &c., in the ‘Quarterly Review’. But I assure you, he may write his worst, and he will never mortify me again.”¹⁹⁰ This ongoing battle between the two was the subject of several months of letters. Mivart was used by the religious authorities to attack Darwinism and Darwin personally, yet they both remained cordial to each other. This nemesis is comparable to the well-known one between Huxley and bishop Wilberforce (1805-1873) which turned into a public affair in June 1860. Darwin had then recognized the influence of Richard Owen (1804-1892) through Wilberforce’s reviews.¹⁹¹ The feud between Darwin and Mivart is representative of the antithetic position between creationists and evolutionists. Darwin and his theory were caught in a twisted game of subterfuges where influences were at the front row. Fortunately, Darwin did not stand alone and tried his best to play according to the foul rules.

The Victorian era as advertised was characterized by increasing concern for progress while strengthening its moral values. Darwinism was caught in the middle of this ambivalent era and was yet a true product of this dualist epoch, because while Darwin scientifically promoted traditional values, he was then accused of being non-progressive. Just like Mivart did, the anonymous reviewer from the *Edinburgh Review*, commented, in 1871, that

[i]f our humanity be merely the natural product of the modified faculties of brutes, most earnest-minded men will be compelled to give up those motives by which they have attempted to live noble and virtuous lives, as founded on a mistake [...].¹⁹²

The different stages of mankind, as Darwin said, illustrate the importance of tradition and progress. Yet, if primitive customs are to be deplored, how are we to look upon them to progress? Most criticisms revolve either around the question of progress, racial hierarchy or the Darwinian “wrong”. However, by the time Darwin published his findings on humans, people were already accepting the idea that nature evolves. *The Descent* did not create the havoc *The Origin* had done eleven years before. At this point, Victorians were more sceptical of Darwin’s moral theory than of evolution itself. Even though Darwin did not hierarchize human societies in term of moral norms, he did differentiate civilized humans from primitive ones. To him, barbaric practices can be seen as such by those who have evolved into higher intellectual beings. If civilized humans educated primitive ones, these barbaric practices would disappear, but natural selection alone would require time. This is why he spoke of a secondary process which

¹⁹⁰ DARWIN, Charles, R., “Letter n° 7976”. *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-7976.xml> (Accessed 09/04/2020) Letter from Darwin to Huxley on the 30th of September 1871.

¹⁹¹ *The Correspondence of Charles Darwin: Volume 8, 1860*. Cambridge: University Press, 1993, p. xxi.

¹⁹² *op.cit.* “Darwin on the Descent of Man”. p. 100.

would take over natural selection. But again, it may be because of this secondary mechanism that Mivart said that Darwin actually did more damage to his theory. By February 1873, Darwin was disappointed by his book's failure to convince his fellow naturalists of its truthfulness. However, he felt momentaneous joy knowing that, in Germany, his book met great success:

I did not know until reading your article that my *Descent of Man* had excited so much furor in Germany. It has had an immense circulation in this country & in America; but has met the approval of hardly any naturalists as far as I know. Therefore I suppose it was a mistake on my part to publish it; but any how it will pave the way for some better work—¹⁹³

On this last proposition, he might have been right, as one of the only accurate uses of Darwin's theory of human morality was made by Edward Westermarck (1862-1939).¹⁹⁴ The resistant hesitation towards his theory got Darwin to question his decision to publish. He feared, like Mivart suggested, that he might have damaged his theory. Yet, he remained hopeful to have paved the way for more research as he would then begin to revise and publish news editions.

Altogether, the effect of *The Descent* was great in regard to extending and confirming the domination of natural selection as the sole ruler of nature. From the publication of *The Origin* onwards, Darwin's theory was no longer treated leniently. This is due to the great impact Darwinism's scientific legitimacy brought forth and it can be seen in the great numbers of people who adhered to its precepts. Yet, like its debuts, the human question was still unsatisfactory to those who could not look beyond the simple facts of a theory. Because society was already prepared for a complete materialistic explanation of human moral sense, the book was better received, and the criticism vacillated between the concepts mentioned above. But in its entirety, Darwin's explanation of moral sense was rarely given complete credit. Therefore, Darwin's theory of moral sense greatly impacted his society, but not in its entirety and essence. When Darwin published *The Descent*, it also contributed to the ongoing debates fuelled by Charles Lyell's *Geological Evidences of the Antiquity of Man* (1863) and Huxley's pamphlet *Evidences as to Man's Place in Nature* (1863). It brought forth some arguments to strengthen the position defended by Huxley and Lyell. Huxley remained for the most part of his life a devoted defender of Darwin. Although they might have disagreed on some points, Huxley's articulation of Darwin's theory of moral sense allowed him later on to stand against Spencer's Social Darwinism. Unfortunately, he, like Spencer, ended up deriving far from Darwin's words. I will not give much attention to Spencer's framework of Darwinian morality as we know now

¹⁹³ DARWIN, Charles, R., "Letter n° 8199". *Darwin Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-8199.xml> (Accessed 09/04/2020) Letter from Darwin to Anton Dohn on the 3rd of February 1872.

¹⁹⁴ According to Arnhart, Westermarck was one of the few prominent nineteenth-century social theorists who rightfully developed Darwin's theory of moral sense.

how distant it was from Darwin's thoughts. However, it is relevant to say that it was one of the only few social and political uses of Darwin's moral theory in the nineteenth century, albeit erroneous. The criticism of Spencerian evolutionary ethics by Huxley prevailed for decades after the publication of *The Descent*, and while it concerns only part of its premises, it is a direct consequence of the globality of Darwinism. Darwin's ethical revelations were also used by others, such as Wallace, the Spiritualists, the socialists and feminists, to foster more democratic and progressive positions. But again, only part of Darwin's words was of use. Moreover, by endorsing Mill's utilitarianism, Darwin promoted an evolutionary ethics in which moral sense is fuelled by intentions. Darwin, as the *Edinburg Review* criticism suggested, replaced Mill's morality of consequences by a morality of intention.¹⁹⁵ By biologizing utilitarianism, Darwin opened the way for further philosophical discussions in this regard, and it appeared to have been one of the major debates ensuing from his book. It is precisely because it admits a continuity to so many existing theories that it was so easily assimilated to the debates of the century.

The outcome of Darwin's evolutionary theory of morality is therefore unsurprising. The nineteenth-century debates over evolutionary ethics associated it to a multitude of distinct topics and it was very rare to see Darwinism taken in its unique elements. Likewise, the reception of Darwin's moral theory was different according to the domain it interested. Each of these domains had their own understanding of the general concepts Darwinism involved; ideas of progress and evolution had different meanings altogether. Even though at this point there was a generalization in secularization, and while evolution was of profit to it, controversies regarding questions of ethics did not end when religion lost its influence. On the contrary it would seem that without the stability offered by religious fundamentals, society became increasingly divided on the question of morality. Any law or doctrine was scrutinized and surveyed more intensively and in the most intrusive manner, especially as the nineteenth century also marks the beginning of the specialization of academic disciplines. Not only was Darwinian morality caught in the century's debates, but it was also taken apart by each different discipline, with sometimes oppositional conclusions. It is precisely because faith was not radically replaced by reason and rationality that Darwinian morality was mixed to a multitude of ideas from those who stipulated that the affairs of morality had no place in science to those who took it upon themselves to tear Darwin's words in every possible direction, to the strictly adaptationist who saw his genesis of morality incompatible with the theory of evolution and

¹⁹⁵ *Op.cit.* RICHARDS, *Darwin and the Emergence of Evolutionary Theories of Mind and Behavior*. p. 239.

natural selection. With the spread of periodicals, men of knowledge could, as we have seen, rightfully deal with emerging ideas such as Darwinism. This way, Darwinism, with its wide purview, was mixed with discussions involving Spencer, Mills, and various other prominent theorists. A point which proves how efficient and compatible Darwin's theory was to its century's debates. However, it may have also induced a lack of general focus from reviewers who would sometimes excessively combine Darwin's theory to others, therefore turning the discussion away from Darwin's general concepts, to such an extent that there were no specific and sustainable domains to discuss morality and Darwinism. While the specialization of academic discipline allowed Darwinian ethics to be considered from different standpoints, it also generalized it to the point that its central message lost its interest. In an article from *The Westminster Review*, one reviewer remarks that Darwinism:

enter[s] our protest against this semipopular style of discussing moral questions. Moral philosophy, or what is conceived as such, is just one of those subjects which is especially attractive to the general reader, but which the general reader is eminently unfitted to discuss.¹⁹⁶

The opinion above suggests that there are still substantial elements that required understanding. But as Darwinism had been associated with many other issues that surrounded ethics, materialism, naturalism, utilitarianism and various others, its fundamental message had been corrupted and constantly under inquiry. While many features of Darwin's theory display a continuity in this sense, to fully grasp its meaning, a consensus might have been necessary. But Darwin may not have had answers, or he just did not want to engage in debates. This point made it that competing interpretations found legitimacy when truly there was none. Darwin's moral theory did not produce any break whatsoever and cannot be read as a linear one. Indeed, because of its global reach and its global adequation –continuity–, Darwin's theory is composed of competing truths that require to be seen in their entirety. And only then it may be understood. Since his ideas of “right” and “wrong” seem to be contentious, a closer look into these concepts might help prove the legitimacy of Darwin's moral theory. The next part will investigate more closely how Darwin's evolutionary ethics unites many dichotomies and reconciles many aspects of human affairs. This part will attempt to counter and illuminate the criticism addressed to his moral theory.

¹⁹⁶ HUTTON, Richard, “The Natural History of Morals”. *Westminster Review*. Vol. 36, 1869, pp. 494-53, p. 495.

2. “A Still Higher Destiny”: Values, Freewill & Nurture

Darwin was accused by many reviews of fostering a moral theory in which he reduced ethics to biology, and by doing so, he confused the morally “right” with survival utility. To shed light on these reproaches made to Darwin’s moral theory, this part will argue that not only is Darwin’s moral theory adequate to sustain ethical realism, but it also blurs the boundaries of numerous dichotomies. In Darwin’s moral theory, freedom re-emerges from evolutionary determinism, values are confounded to facts and nature and nurture become synonymous. This part will also consider the importance attributed by Darwin to culture and education, in order to prove that his theory does not undermine human and social foundations.

As brought to attention in the previous chapter, Darwin’s ethical theory admits a continuity to Humean and Aristotelian traditions of naturalism and ethics. Darwin agrees and proves with them that humans are, by nature, social and political animals whose moral sense are innate and instinctive. By doing so, Darwin grants a biological root to human social and moral senses. However, and probably this was the reason why it caused so much contention, this direct link made by Darwin had previously been the basis for centuries of debates. Many theorists advocated for a radical polarity between what “is” and what “ought” to be. This is known as the “Hume Law” which holds that the judgement of facts and the judgement of values are distinct. That is to say, scientific objectivity can only account for what is evidentially true and is not equipped to judge between two possible choices. However, as Michel Ruse remarks, “the very last thing the Darwinian wants to do is break Hume’s law by denying that there is a genuine ‘is/ought’ distinction”.¹⁹⁷ On the contrary, as Arnhart argues, “far from separating facts and values, Hume showed how moral judgements could be grounded in certain facts of human nature as this account of Hume’s Law has now been proven wrong”.¹⁹⁸ This is the reason why recent study now shows that Darwin’s moral theory is inspired by Humean ethics.

According to Darwin’s genesis of morality, humans possess the intellectual ability to deliberate on their own desires and to judge that some are more valuable than others. Darwin bridges this alleged gap between “is” and “ought”:

For each individual would have an inward sense of possessing certain stronger or more enduring instincts, and others less strong or enduring; so that there would often be a struggle as to which impulse should be followed; and satisfaction, dissatisfaction, or even misery would be felt, as past impressions were compared during their incessant passage through the mind. In this case an inward monitor would tell the animal that it would have been better to have followed the one

¹⁹⁷ RUSE, Michael. *Taking Darwin Seriously*. New York: Basil Blackwell, 1986, p. 251.

¹⁹⁸ *Op.cit.* ARNHART, *Darwinian Natural Right*. p. 70.

impulse rather than the other. The one course ought to have been followed, and the other ought not; the one would have been right and the other wrong;¹⁹⁹

Here, Darwin shows how these impulses arise from instincts and are guided by reason. This passage is clearly inspired by Hume's explanation of action as Hume says that "the impulse arises not from reason, but is only directed by it."²⁰⁰ Darwin proves that human desires are motivated by instincts and it is humans' intellectual power that allows them to instruct and to decide between moral choices. And reason, like any other human capacity, is the product of nature. Darwin explicitly argues this point throughout his fourth chapter "Comparison of the Mental Powers of Man and the Lower Animals".²⁰¹ Then one may ask why it created so much confusion. The answer lies in Darwin's allusion to Kant. Indeed, while discussing Mackintosh's remarks on the significance and supremacy of human moral sense and the "imperious word *ought*", he explains that humans deliberate by being "impelled simply by deep feeling of right or duty". Darwin, in a haste to accentuate the meaning of "duty", quotes Kant:

"Duty! Wondrous thought, that workest neither by fond insinuation, flattery, nor by any threat, but merely by holding up thy naked law in the soul, and so extorting for thyself always reverence, if not always obedience; before whom all appetites are dumb, however secretly they rebel; whence thy original?"²⁰²

In the following pages, while explaining how with sympathy strengthened by habit and the power of reasoning, humans are able to judge their actions, he once again mentions Kant. This time to emphasize how humans can take control of their own conduct, he writes: "I am supreme judge of my own conduct, and in the words of Kant, I will not in my own person violate the dignity of humanity".²⁰³ Both references to Kant might at first seem inconsequential, but it is at the root of one of the major reproaches made to Darwin. Indeed, in a broad outline, Kant on the case of morality is dualist. Indeed, to him, nature governs causal laws. A point which explains why in nature, everything is determined by causal mechanisms. However, a moral choice requires freewill, which by definition, cannot be determined. Hence, moral laws transcend natural causation. To him, the "ought" goes beyond the natural realm of the "is".²⁰⁴ Right after praising Kantian moral duty Darwin announces that he is departing from Kantian views:

This great question has been discussed by many writers of consummate ability; and my sole excuse for touching it, is the impossibility of here passing it over; and because, as far as I know, no one has approached it exclusively from the side of natural history.²⁰⁵

¹⁹⁹ *Op.cit.* DARWIN, *The Descent of Man*. p. 100.

²⁰⁰ *Op.cit.* HUME, *A Treatise of Human Nature*. p. 414.

²⁰¹ *Op.cit.* DARWIN, *The Descent of Man*. p. 97.

²⁰² *Ibid.* p. 47

²⁰³ *Ibid.* p. 110.

²⁰⁴ See KANT, Immanuel, *Critique of Pure Reason* [1781]. Transcribed by Norman Kemp Smith. London: Macmillan and Co, 1929,

²⁰⁵ *Op.cit.* DARWIN, *The Descent of Man*. p. 7.

However, it looks like quoting Kant might have cost him more than he had anticipated. Indeed, it secured a path for Mivart to criticize and to attempt to discredit Darwin's theory of moral sense based on this alleged confusion. Yet, it is clear from Darwin's indication that his theory differs from Kant's views. After all, as Darwin deplored, Mivart had the habit of "omitting" the ends of sentences or paragraphs. Darwin's adversary position on the dichotomy "is/ought" is shared by many other ethical theorists, making his view of a natural morality legitimate and continuous to other ethical theories. Nonetheless, Darwin did mention the rise of a secondary natural process which infers in the affairs of civilized humans, decreasing natural selection's effect upon moral laws. To that, one may ask, if this secondary process be at the source of human's deliberate moral choices, and that humans are to be held responsible for their moral choices, what of the irresistible determinism that was so coupled to Darwinism? No doubt that morality and rationality grow together in the constitution of civilization and are the fruit of a joint natural selection:

I am, however, very far from wishing to deny that instinctive actions may lose their fixed and untaught character, and be replaced by other performed by the aid of the free will. On the other hand, some intelligent actions, after being performed during several generations, become converted into instincts and are inherited, as when birds on oceanic island learn to avoid man.²⁰⁶

Human freewill, says Darwin, may influence deliberate moral choice. But how can humans have freewill while they are determined by nature?

As mentioned above, Darwinian morality is criticized for undermining all human foundations for, without freedom of choice, there cannot be good choices or bad ones. Morals and religions have for long been almost synonymous as the divine also transcends nature. Morals teach humans how to act humanely and not beastly. Because morality wants to transcend nature, freewill is what differentiates humans from animals. But from the quote above, clearly, Darwin does not dismiss freewill. He speaks of a freewill within nature. What he offers is a moral freedom which operates within nature's frames and is characterized by human's natural capacities to deliberate on their own desires. After all, if morals transcend nature, why are children incapable of making deliberate moral choices? A Darwinian answer would be that they are not intellectually capable of reflecting on their own desires and that of their communities. They require education to do so. Freedom, on a Darwinian account, is what makes humans capable of deliberating and reflecting on alternative choices. It allows them to best serve themselves as they are free to act and know of possible ensuing consequences. Freewill

²⁰⁶ *Ibid.* p. 67.

becomes humans' power to manage their desires to their own benefits. But it remains within nature's realm:

Every action whatever is the effect of a motive [...] A man may put himself in the way of contingencies.— but his desire to do arise from motive.— & his knowledge that it is good for him effect of education & mental capacity [...] one well feels how many actions are not determined by what is called free will [...] The general delusion about free will obvious.— because man has power of action, & he seldom analyses his motive (originally mostly INSTINCTIVE, & therefore now great effort of reason to discover them: this is important explanation) he thinks they have none.²⁰⁷

Darwin emphasizes that all choices are motivated, either instinctively or through careful consideration of all “contingencies”, hence, no choice is entirely free. Civilized humans make choices depending on their culture and education. And their culture and education make them restrained by social norms and moral values. But the choice that civilized humans learned to make through reason renders them responsible for their own choices. Hence, at some level, due to the emergence of this secondary natural process that lessened natural selection influence over civilized humans, humans somehow acquired more freewill within natural realm. Even though humans are motivated by experience, culture, education, and instincts, they are still morally responsible for their actions. This is what made humans distinct from any other living species. Humans are nurtured to make moral choices.

Humans have evolved in becoming more and more transformative of their own environment while freeing themselves from evolutionary constraints. They have gradually grown from instincts and now morally act on both instincts and reason. Survival relies now on rationality and calculations. However, instincts, by definition, are infallible. At first, humans were motivated by instincts and feelings to choose and they were naturally engineered to take the best course of action for their own survival and to best fit their environments. There was little place for errors. Now mistakes can be afoot, as they have evolved to slowly emerge from natural selection, albeit not completely. While humans now act less on instincts and more on reason and dominate their environments instead of adapting to it, they are subjected to mistakes. Thereby, the more humans evolve and decide freely, the more they may be at risk. However, it is crucial to remember that humans did not transcend nature by acquiring the capacity to choose between contingencies. While the emergence of morality may appear as a break from nature, truly, it is only the effect of it. In the history of human evolution, from their common ancestor to the now moral and conscious humans, there have been no breaks, only illusions of ones.

²⁰⁷ *Op.cit.* DARWIN, *Old & Useless Notes*. p. 25.

To understand how human moral sense can foster freedom, let us consider the emergence of religion as most religions of humanity have established systems of moral prescriptions. To Darwin, the beliefs in the supernatural are reminiscences of human animality. Religious beliefs are not instinctive to mankind, as they are unknown to some savage tribes, but they derive from instincts.²⁰⁸ If the contrary be true, if religion beliefs were innate, they would have been displayed in a singular form. Only animals endowed with higher mental capacities are subjected to religious inclinations. Darwin attributes religious beliefs to the combination of imagination, curiosity and reason which led humans to wonder about the surrounding nature, in dreams and awake. During Darwin's times, many concerns were put into the genesis of religions, and some, like Spencer and Sir Edward Burnett Tyler, investigated on primitive forms of religions and found an answer in animism.²⁰⁹ When Darwin witnessed his own dog barking furiously at a waving parasol to chase an invisible intruder, he understood that it was a form of animism.²¹⁰ He also realized that religion does not admit a rupture with animality and does not transcend nature. Religion, with its exacted endeavour, only produces the effect of transcendence:

The ennobling belief in God is not universal with man; and the belief in active spiritual agencies naturally follows from his other mental powers. The moral sense perhaps affords the best and highest distinction between man and the lower animals; but I need not say any thing on this head, as I have so lately endeavored to show that the social instincts—the prime principle of man's moral constitution—with the aid of active intellectual powers and the effects of habit, naturally lead to the golden rule, "As ye would that men should do to you, do ye to them likewise;" and this lies at the foundation of morality.²¹¹

The non-universality of religious beliefs is intrinsically linked to the non-universality of moral values. The only thing that appears universally shared is the need for a morally ordered society. All humans want a universal moral set of laws to define social conduct. The rest is culturally and historically dependent. To this relativist explanation, Darwin gave an answer on how to distinguish between right and wrong which apparently did not suffice to those eager to criticize him. To Darwin, the more intellectually endowed a human being is, the more he will be able to acknowledge this relativism, and it will allow him to be morally free. This proposition can be illustrated through the case of repentance and remorse, which has been pointed out by Cobbe. On the case of remorse, Darwin recounted a short story told by a certain Mr. Landor, magistrate in West Australia:

²⁰⁸ *Op.cit.* DARWIN. *The Descent of Man*. p. 612.

²⁰⁹ See Spencer's ghost theory in *Principle of Sociology* (1876) where he argues that the beliefs in spirits are caused by the fear of death and the unknown, and anthropologist Sir Edward Burnett Tylor's *Primitive Culture* (1871).

²¹⁰ *Op.cit.* DARWIN. *The Descent of Man*. p. 64.

²¹¹ *Ibid.* p. 126. Darwin quoting here Marc Aurelius.

A native in his farm, after losing one of his wives from disease, came and said that “he was going to a distant tribe to spear a woman, to satisfy his sense of duty to his wife. I told him if he did so, I would send him to prison for life [...] he could not rest or eat, that his wife’s spirit was haunting him [...] the man disappeared for more than a year, and then returned in high condition; and his other wife told Dr. Landor that her husband has taken the life of a woman belonging to a distant tribe; but it was impossible to obtain legal evidence of the act. The breach of a rule held sacred by the tribe, will thus, as it seems, give rise to the deepest feelings,— and quite apart from the social instincts, excepting in so far as the rule is grounded on the judgement of the community.”²¹²

To Darwin, there is no telling how many of such strange superstitions arose throughout the history of mankind, just as there is no comprehension of how some savages have come to loathe crimes such as incest when others didn’t. To him, this is the proof that loathing incest is not a divine prescription. Darwin compares the revengeful husband to an insulted gentleman who feels “ought” to fight a duel. To him, “the imperious word *ought* seems merely to imply the consciousness of the existence of a rule of conduct, however it mere have originated”.²¹³ As a result, the husband obeyed this persistent impulse approved by his culture’s moral norms. But he did go far away to do it, as he may have feared the disapproval of Mr. Landor. This proves that moral laws and feelings of duty, two evolutionary facts, are relative to time and environment. However, here, the dominant culture, the one of Mr. Landor, forced the husband to go far away in fear of punishment. This implicitly shows that Mr. Landor’s moral values are slowly dominating that of the husband. Darwin believes this point illustrates that the universal does not exist. This is why he is somehow forced to recognize that savage morality must have at some point in their histories been triumphant. Nonetheless, by recognizing this cultural relativism, he was able to free himself from the idea that the belief in religion was universal and that universal morality was possible. Recognizing that moral laws are relative, it widens the contingencies of choice, hence, strengthens moral freedom. Though it appears now that a cultural struggle for existence has emerged.

Some moral prescriptions are to be outgrown, just like religions, and only those who recognize the relativism behind it can freely and objectively make good choices. Religion and their moral prescriptions are therefore a strategy to reinforce moral sense. Moral law, as a product of evolution, can only be desirable to humans as it allows humans to evolve from savagery while establishing civilization as advantageous. The more civilized society is, the more its moral precepts would naturally dominate. A savage will not be sufficiently intelligent to recognize the benefit, or the utility, of a conduct; only the civilized human, the “philosopher” as Cobbe calls it, would understand it. Savages are still strongly under the influence of natural

²¹² *Ibid.* p. 115.

²¹³ *Ibid.* p. 116.

selection, while in civilized society, its influence decreases. Therefore, the utility of an act would come to savages as an instinct and not a calculation. At some point, with a change of circumstances, some savage tribes must have understood, by intellectually evolving, that infanticide was not as advantageous as it appeared. To the practice of female infanticide, Darwin explains that it may have been considered as advantageous for tribes with uneven “production of both sexes in equal number” or when the production of “one sex [was] in excess”.²¹⁴ This way, once the production of both sexes was even, the practice stopped. Meanwhile, as the tribe fared better, and with the ever-changing circumstances, savages could evolve and acquire more intellectual capacities to understand that infanticide was disadvantageous. What Darwin meant is that we cannot blame a savage for practicing infanticide as it was instinctively thought to be beneficial and as their intellectual capacity did not allow them to deliberate on it. Conversely, civilized humans are capable of discerning the evils behind it as they are more able to deliberate and calculate. This is why education and culture are so important to Darwin as civilized humans rely on them more strongly to make moral choices.

Comparatively, if moral freedom strives within nature and morality is before all the expression of natural instincts, culture and moral norms are products of nature. Darwin does not want to destroy the foundations of societies; on the contrary, education and culture are crucial for humans to be morally free. To him, moral norms are both inherited, learned, and imitated. Without moral foundations, how are we to educate children to later best serve themselves and their societies? One reason why many doubted Darwin’s explanation of right and wrong is that the Victorians seem to have difficulties to accept that moral justice is not exclusive to humans. Indeed, Darwin’s entire book revolves around analogies between animals and humans. Some species demand moral conducts and individuals are punished when they act against the social norms. Obeying to rules and defining them are shared by many species. And as long as the circumstances change, and they most certainly will, moral norms will also change. The only difference is that humans learned to accommodate nature to their needs. This way they slowly established more constant moral norms that best fit their less evolving environment.

Another recurring and crucial aspect of Darwin’s arguments is that imitation and learning are important to social stability. He compares learning in birds and imitation in monkeys to prove the role of parents in preparing their children. The only difference is of degree. Animals rely primarily on social instincts and humans have evolved to learn moral

²¹⁴ *Ibid.* p. 200.

norms through education.²¹⁵ This way, Darwin also ends the old dichotomy between nature and nurture. Both nature and nurture are crucial to moral choices and deliberations. To Darwin, parental care also comes in various forms. At some point, infanticide was favoured by parents. It does not however undermine the concept of parenthood as natural. On the contrary, just like any other aspect, parenthood comes in various forms and various aspects according to the moral customs of the society. Because culture evolves differently according to circumstances, there are no universal moral customs. Therefore, there is no universal moral education. Each society defines what and how to educate according to their moral customs. But education and parenthood in themselves are crucial to morality. Darwin promotes the two and relies on them:

The more efficient causes of progress seem to consist of a good education during youth whilst the brain is impressible, and of a high standard of excellence, inculcated by the ablest and best men, embodied in the laws, customs and traditions of the nation, and enforced by public opinion. It should, however, be born in mind, that the enforcement of public opinion depends on our appreciation of the approbation and disapprobation of others; and this appreciation is founded on our sympathy, which it can hardly be doubted was originally developed through natural selection as one of the most important elements of the social instincts.²¹⁶

Darwin only asks that morality be considered as the product of nature and not the prescription of a divine being. Darwin speaks of religion as a tool used by humans to serve morality. Therefore, religious moral prescriptions are not entirely doubted by Darwin. He only dismisses their infallibility. They must be reflected on. And in a world determined by nature, humans have evolved to deliberate on moral choices. Because religion comes in so many forms, the moral values emanating from each religion differ. Therefore, either in nature or in alleged transcendent religions, there is no universality. The more humans advance in intellectual power, the more they will be able to reflect on the most remote consequences of their actions. They would acquire sufficient knowledge to reject baneful customs and superstitions:

As all men desire their own happiness, praise or blame is bestowed on actions and motives, according as they lead to this end; and as happiness is an essential part of the general good, the greatest-happiness principle indirectly serves as a nearly safe standard of right and wrong. As the reasoning powers advance and experience is gained, the remoter effects of certain lines of conduct on the character of the individual, and on the general good, are perceived; and then the self-regarding virtues come within the scope of public opinion, and receive praise, and their opposites blames. But with the less civilised nations, reason often errs, and many bad customs and base superstitions come within the same scope, and are then esteemed as high virtues, and their breach as heavy crimes.²¹⁷

The optimum right and wrong would be deciphered when humans are capable of reflecting on the general good. Not only theirs, but also that of all species. Only then would they be able to

²¹⁵ *Ibid.* p. 73.

²¹⁶ *Ibid.* p. 143.

²¹⁷ *Ibid.* p. 611.

morally rise “higher and higher”. Thus, the primary path to settle the right from the wrong is by deliberating on all possible consequences and for the happiness of the many. If morality does not concern science, insanity and criminality should not have been considered as inherited. They should be, like morality, of a transcendent essence, and there would be little cure to them.

Indeed, Darwin writes that “if bad tendencies are transmitted, it is probable that good ones are likewise transmitted”. Therefore, righteousness is a nature-given virtue. To Darwin, it can only be explained through the following assessment: “Except through the principle of the transmission of moral tendencies, we cannot understand the differences believed to exist in this respect between various races of mankind”.²¹⁸ However, it has been proven that it is possible to recognize right from wrong through careful deliberation, and dispositions have been taken to ensure the disappearance of these traits:

In regard to the moral qualities, some elimination of the worst dispositions is always in progress even in the most civilised nations. Malefactors are executed, or imprisoned for long periods, as that they cannot freely transmit their bad qualities. Melancholic and insane persons are confined, or commit suicide.²¹⁹

However, as tendencies are inheritable, it will always reappear. This is why education is of the upmost importance to ensure that conscience be more sensitive. The habit of recalling and comparing past impressions allows human conscience to be more sensitive, which in turn “may compensate to a certain extent for weak social affections and sympathies”.²²⁰

The moral faculties are generally and justly esteemed as of higher value than the intellectual power. But we should bear in mind that the activity of the mind in vividly recalling past impressions is one of the fundamental though secondary bases of conscience. This affords the strongest argument for educating and stimulating in all possible ways the intellectual faculties of every human being.²²¹

Moreover, as some moral values can become inheritable, Darwin advises that humans should learn to manage their conscience: “the highest possible stage in moral culture is when we recognise that we ought to control our thoughts, and “not even in inmost thought to think again the sins that made the past so pleasant to us”.²²² Quoting here Lord Tennyson, Darwin believes that by avoiding experiencing bad thoughts, moral wrongs can be eradicated. This point may somehow be confusing. He suggests that to be more sensible to acts, one should be able to remember past impressions. However, some past impressions might have been pleasurable yet wrong, therefore, those actions which have now been reflected on and deemed as such must be

²¹⁸ *Ibid.* p. 124.

²¹⁹ *Ibid.* p. 137.

²²⁰ *Ibid.* p. 611.

²²¹ *Ibid.* pp. 611-612.

²²² *Ibid.* p. 123.

kept far from the mind. Darwin does not give a set of moral rules to follow but presents a way to obtain it. Moreover, and more importantly, Darwin does not reject his society's foundations. This point is important as if the contrary be true, there would be no continuity in his theory. Darwin expresses the importance of those who reflected and promoted moral laws as he writes that: "great lawgivers, the founders of beneficent religions, great philosophers and discoverers in science, aid the progress of mankind in a far higher degree by their works than by leaving a numerous progeny".²²³ Here, he speaks of the legacy of mind as more beneficial than biological: even though good traits may be hereditary, they are not cumulative. For instance, a child born from two genius parents will not be endowed with a greater amount of this character. In the same way, a genius can be born from two average parents. Some inheritable traits are more prevalent in some individuals than others. The important note here is that Darwin recognizes the value of those who reflected on moral norms. Darwin does not undermine his society's foundations, but only infers that they must be reflected upon in order to be perfected. Perfected, because Darwin believes in a still "higher destiny" for humans. To him, although civilized humans have evolved into the most dominant and intellectual beings, they are still to progress into even higher beings:

Man may be excused for feeling some pride at having risen, though not through his own exertions, to the very summit of the organic scale; and the fact of his having thus risen, instead of having been aboriginally placed there, may give him hope for a still higher destiny in the distant future. But we are not here concerned with hopes and fears, only with the truth as far as our reason permits us to discover it; and I have given the evidence to the best of my ability. We must, however, acknowledge, as it seems to me, that man with all his noble qualities, with sympathy which feels for the most debased, with benevolence which extends not only to other men but to the humblest living creature, with his god-like intellect which has penetrated into the movements and constitution of the solar system – with all these exalted powers – Man still bears in his bodily frame the indelible stamp of his lowly origin.²²⁴

Humans are destined by Darwin to keep on evolving and progressing. This statement closely pertained to teleology as humans will be evolving into better ones. Darwin was accused of degrading humanity and turning humans into morally naked and aimless beings even though he obviously praised humans for having evolved into higher beings without divine intervention. For what it is worth, Darwin here makes an assessment in which he attributes human superiority to humans themselves. To him, believing in God's intervention is demeaning human morality and intelligence. Moral sense, acquired initially through instinctive impulses and later through cultural evolution and progressive learning, will gradually lead civilized humans to extend

²²³ *Ibid.* p. 136.

²²⁴ *Ibid.* p. 619.

morals acts to all living creatures who, in turn, will become even higher beings. To him, humans did not fall from grace, as Biblical scripture would have it, but are to evolve into grace.

To conclude, Darwin's moral theory did not provide a set of moral values. Instead he insisted that moral values should be reflected on *what is important* to progress, that is what is the most *useful* to the wellbeing of all mankind. Moral facts are natural facts that can and should be judged, hierarchized, and be used as a basis for behaviour within the same society. Although human morality and intelligence seem to promote a discontinuity from animality, Darwin, in his ethical naturalism, showed that culture, nurture, education, and values are natural, especially as they are shared to a lesser degree with other animal species. Millenia-old heritage of chasms between humanity and animality, culture and nature, values and facts, freewill and determinism are ended by Darwin. Not only did he scientifically confirm naturalist ethical theories, but he also proved a unity in all human affairs, without any form of discontinuity. He was able, against all fears, to prove Adam Sedgwick's claims wrong: that if a natural theory be true, then "the labours of sober induction are in vain; religion is a lie; human law is a mass of folly, and a base injustice; morality is moonshine; our labours for the black people of Africa were works of madmen; and man and woman are only better beasts!".²²⁵ To Darwin, morality does not need to transcend nature in order to be valued, and humans did not require divine providence to strive, they did it on their own. The emergence of religions and its precepts reinforced nature's dictate, as humans found a way in religions to serve nature. As Darwin bluntly suggested, "the idea of a universal and beneficent Creator does not seem to arise in the mind of man, until he has been elevated by long-continued culture".²²⁶

Instead of annihilating human foundations, he protected them for he recognized the importance of culture and education. Darwin only reconstructed traditional establishments and transcendental concepts within nature's frame. His theory does not render morality aimless but rather, ensures that humans progress to fulfil their morality. Progress seems to be deeply embedded in his moral theory, especially as Darwin ended his book by a quite hopeful and optimistic note. The question of moral goals and the relationship between teleology and progress in evolution, probably the most controversial aspect of his theory, will now be considered.

²²⁵ CLARK, John, W. and HUGHES, Thomas, M., *The Life and Letters of the Reverend Adam Sedgwick*. Cambridge University Press, Vol. 2, 1890, pp. 83-84. Letter from Adam Sedgwick to Charles Lyell on the 9th of April 1845. Adam Sedgwick criticized evolutionary thinker Robert Chambers (1802-1871)

²²⁶ *Op.cit.* DARWIN, *The Descent of Man*. p. 612.

3. Evolutionary Teleology & Nature's Purpose

Common interpretations consider that Darwin's theory of evolution provided science with a non-teleological explanation of adaptation. Darwin proved that natural mechanisms are random and by doing so, that nature is without divine purpose or design. However, his departure from teleology is not as neat as it may appear. Indeed, while promoting secularism and materialism, Darwin proposed a moral theory in which moral beings are inclined to morally act towards an end. By referring to nature as the origin of morality and by promoting moral progress, Darwin implicitly conferred a teleological view of nature as having goals and purposes. Moral laws rely on a teleological conception of nature. So that we may prove a continuity in Darwin's moral theory, we will assess the extent to which Darwinism is sympathetic to teleology. A first part will be devoted to Darwin's confusing position regarding this matter. In a second part, I will describe his relation and reactions to Asa Gray, the prominent American Darwinian botanist, who tried to prove compatibility between Darwinism and teleology. Conversation with Gray depicts a very unknown Darwin, one who showed much care for teleology. In a final part, I will consider more recent studies on this confounding association to clarify Darwin's position, as his own silence on the matter causes, to this day, many debates. Overall, I aim to illustrate, how, contrary to common belief, Darwin made use of teleological means to promote moral purposes in nature and how a teleological conception of nature emerges from natural selection.

From his private notebooks to his published books, Darwin had often been ambiguous on the question of teleology. While he quickly revealed his theory as radically opposed to any form of theology, the ideas of progress and purpose in nature seem to roll back and forth. It is obvious from his notebooks and letters that he devoted time and efforts to reflect on final causes, perfection, and teleology, yet he very rarely gave a full explicit statement on his position, unless of course, when it concerned religion. For instance, on the concept of progress, in his *Notebook B*, he assesses that "it is absurd to talk of the one animal being higher than another".²²⁷ Yet, throughout both *The Origin* and *The Descent*, he argued in favour of a progress from lower animals to higher beings. Though on this case, he may be excused for he was only at the beginning of his great scientific journey. However, while in *The Origin* he denied the existence of a purpose to nature, he sometimes made propositions which cause much puzzlement in the mind of his readers:

Authors of the highest eminence seem to be fully satisfied with the view that each species has been independently created. To my mind it accords better with what we know of the laws

²²⁷ DARWIN, Charles, R., *Notebook B*. Ed. Paul Barrett. 1837-38, p. 74.

impressed on matter by the Creator, that the production and extinction of the past and present inhabitants of the world should have been due to secondary causes, like those determining the birth and death of individual.²²⁸

It is unclear whether Darwin is speaking of his own mind or adopting the views of others. Here he addresses creationists who believe in the fixity of species. He considers natural selection as a secondary cause without further intervention of a Creator but he implies that a Creator is at the source of the lawful process of evolution. Darwin speaks of a Creator who created the laws which govern matter. It is a position shared by the thinkers of the eighteenth-century Scientific Revolution such as Descartes. Whether he speaks out his own mind or only refers to them to foster his point remains a mystery. Especially as he concludes *The Origin* by stating that:

There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being evolved.²²⁹

“Breathing life into” is irrevocably a reference to the Biblical conception of creation. Darwin may have purposely left room for a Creator in order to be better received and to accommodate his society’s religious sensitivities. Indeed, he ends both his books, *The Origin* and *The Descent*, on a cheerful and hopeful note. Darwin undoubtedly rejects divine design in natural selection, and yet he sometimes makes such points which made his theory confusing. These occasional inconsistencies are also seen in the ways he dealt with the idea of perfection. Indeed, he sometimes promotes an optimistic view of natural selection as leading towards perfection:

Hence we may look with some confidence to a secure future of equally inappreciable length. And as natural selection works solely and for the good of each being, all corporeal and mental endowments will tend to progress towards perfection.²³⁰

And yet, on other occasions, he reminds his readers that natural selection is blind and has no intention to reach perfection:

The competition will have been severer, and this the standard of perfection will have been rendered higher. Natural selection will not necessarily produce absolute perfection; nor, as far as we can judge by our limited faculties, can absolute perfection be everywhere found.²³¹

Darwin seems to differentiate perfection from absolute perfection, which to my view, renders the comprehension even more confusing. Though his main message of materialism in nature was received, these rare passages gave rise to multiple interpretations of Darwin’s theory. It also shows Darwin as a true product of the Victorian era when people vacillated between their disillusionment with religion and their eagerness to progress. However, in *The Descent*, his

²²⁸ *Op.cit.* DARWIN, *The Origin of Species*. p. 488.

²²⁹ *Ibid.* p. 490.

²³⁰ *Ibid.* p. 489.

²³¹ *Ibid.* p. 206.

position seems more stable. Nature has produced living organisms with purposes. Not ones instructed by a Deity, but ones dictated by nature itself, or so it would seem.

Darwin illustrates in his moral theory that nature fuelled humans with moral purposes while leading them on progressive trajectory. Natural desires influence humans to act towards a beneficial end. Any moral act has a goal which satisfies a natural desire. To judge a moral act, one must observe whether it satisfies a natural desire or frustrates it. The more humans satisfy their natural desires, the more they will evolve and reach the ultimate goal of progressing into higher moral beings. Human beings, like any other living creatures, are not meaningless. They are driven by nature to progress into better version of themselves by fulfilling specific goals. It is crucial here to understand that while conferring a purpose to natural beings, and by somehow reinstating teleological reasoning, Darwin does not evoke God at all. While in *The Origin* we may find some evocation of a Creator, in *The Descent*, Darwin recurrently denies the existence of God *in nature* and demeans religion to characteristics of lower humans; Darwin explicitly refutes natural theology. For all that it is, Darwin only criticizes the creationist idea that nature is ruled by providential laws. He proves that even without divine providence, humans can have a purpose. To him, nature is not equipped to prove the existence of God and nature cannot be the expression of God. To better understand Darwin's position towards teleology, his extensive, vigorous, and yet instructive debates with his long-time friend, Asa Gray must be considered.

Asa Gray was Darwin's strongest advocate and ally in America. Darwin was convinced that Gray understood his theory unlike any other. Gray recognized Darwin's genius and believed that Darwinism could be employed to support natural theology. Darwin first met Gray in 1839 while he was visiting England. As Darwin's letters testify, both remained in contact and exchanged on scientific discoveries. Upon publishing his *Origin*, Darwin had previously shared his theory with Gray.²³² The latter wrote a critical review of *The Origin* in the *American Journal of Science and Arts* in which he defended Darwinism against atheistic accusations. He argued that Darwin's hypothesis is as true as the theory of gravitation or the nebular hypothesis: "Now it is not thought, at least at the present day, that the establishment of the Newtonian theory was a step towards atheism or pantheism".²³³ Gray also suggested this way that Darwin's theory is logically compatible with creationism. Impressed by Gray's review, Darwin saw in his arguments a good defence against theological attacks. Darwin concluded that: "No one person

²³² MILES, Sara, J., "Charles Darwin and Asa Gray Discuss Teleology and Design". *PSCF*. Vol. 53, 2001, pp. 196-201.

²³³ GRAY, Asa, *Darwiniana: Essays and Reviews Pertaining to Darwinism*. New York: D. Appleton and Company, 1888, p. 55.

understands my views & has defended them so well as A. Gray; – though he does not by any means go all the way with me”.²³⁴ He confessed to Gray that following:

It has always seemed to me that for an Omnipotent & Omniscient Creator to foresee is the same as to preordain; but then when I come to think over this I get into an uncomfortable puzzle *something* analogous with "necessity & Free-will" or the "Origin of evil," or other subject quite beyond the scope of the human intellect.²³⁵

Although Darwin did reflect on these subjects as his notebooks attest, he, for most part, kept them private for it troubled him greatly. For the following decade, they both held long discussions and debates on teleology:

With respect to the theological view of the question; this is always painful to me.– I am bewildered.– I had no intention to write atheistically. But I own that I cannot see, as plainly as others do, & as I sh^d wish to do, evidence of design & beneficence on all sides of us. There seems to me too much misery in the world. I cannot persuade myself that a beneficent & omnipotent God would have designedly created the *Ichneumonidae* with the express intention of their feeding within the living bodies of caterpillars, or that a cat should play with mice. Not believing this, I see no necessity in the belief that the eye was expressly designed. On the other hand I cannot anyhow be contented to view this wonderful universe & especially the nature of man, & to conclude that everything is the result of brute force. I am inclined to look at everything as resulting from designed laws, with the details, whether good or bad, left to the working out of what we may call chance. Not that this notion *at all* satisfies me ... But the more I think the more bewildered I become; as indeed I have probably shown by this letter.²³⁶

Darwin breached on this subject to Lyell by comparing natural selection to a human architect:

The very existence of the human architect shows the existence of more general laws; but no one in giving credit for a building to the human architect, thinks it necessary to refer to the laws by which man has appeared. No astronomer in showing how movements of Planets are due to gravity, thinks it necessary to say that the law of gravity was designed that the planets sh^d pursue the courses which they pursue.– I cannot believe that there is a bit more interference by the Creator in the construction of each species, than in the course of the planets. –It is only owing to Paley & Co, as I believe, that this more special interference is thought necessary with living bodies.²³⁷

Darwin had come to disbelieve Paley's natural theology and could no longer see in nature evidence for the existence of God. To him, natural evils and divine benevolence are incompatible. It is clear that what distraught Darwin *was not teleology in itself*, as he repeatedly

²³⁴ DARWIN, Charles, R., "Letter n° 2882". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-2882.xml> (Accessed 18/04/2020) Letter from Darwin to James Dwight Dana on the 30th of July 1860.

²³⁵ DARWIN, Charles, R., "Letter n° 2713". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-2713.xml> (Accessed 18/04/2020) Letter from Darwin to Gray on the 24th of February 1860.

²³⁶ DARWIN, Charles, R., "Letter n° 2814". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-2814.xml> (Accessed 18/04/2020) Letter from Darwin to Gray on the 22nd of May 1860.

²³⁷ DARWIN, Charles, R., "Letter n° 2833". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-2833.xml> (Accessed 18/04/2020) Letter from Darwin to Lyell on the 17th of June 1860.

expressed how he was unsatisfied and even unwilling to reduce humanity to nature's "brute forces". He once again wrote to Gray:

I have just reread your letter: in truth I am myself quite conscious that my mind is in simple muddle about "designed laws" & "undesigned consequences".— Does not Kant say that there are several subjects on which directly opposite conclusions can be proved true?! [...] I see a bird which I want for food, take my gun & kill it, I do this *designedly*.— An innocent & good man stands under tree & is killed by flash of lightning. Do you believe (& I really sh^d like to hear) that God *designedly* killed this man? [...] If the death of neither man or gnat are designed, I see no good reason to believe that their *first* birth or production sh^d be necessarily designed. Yet, as I said before, I cannot persuade myself that electricity acts, that the tree grows, that man aspires to loftiest conceptions all from blind, brute force.²³⁸

Darwin remained for the most part convinced that God could not have designed nature, its numerous variations and even the shape of his nose.²³⁹ However, on the case of human conscience, Darwin decided to "show a white flag". To him, "if anything is designed, certainly Man must be; one's 'inner consciousness' (though a false guide) tells one so".²⁴⁰ Darwin was never convinced by Gray's arguments but he maintained the dialogue for years. In July, August and October 1860, Gray published three articles in the *Atlantic Monthly*, that Darwin considered "admirable" and yet, he remained puzzled by the whole affair: "I am conscious that I am in an utterly hopeless muddle. I cannot think that the world, as we see it, is the result of chance; & yet I cannot look at each separate thing as the result of Design".²⁴¹ Darwin here seems to imply that the world in its entirety can be considered as the work of a designer while specific events should be considered as the result of chance. He accepted here that the universe may have been intelligently designed, but variations in nature could not have been predestined by God. If there is a designer, he cannot be found in nature. Further evidence on Darwin's position can be seen in his letters with Lyell and John Herschel (1792-1871).

When Darwin published *On the Various Contrivances by which Orchids are Fertilised by Insects* (1862), Gray, in his review "Evolutionary Teleology", was delighted to see that Darwin had, according to his understanding, accepted teleology and design in nature:

In a review of Darwin's volume on the 'Fertilization of Orchids' [...] we expressed our sense of the great gain to science from his having brought back teleology to natural history. In

²³⁸ DARWIN, Charles, R., "Letter n° 2855". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-2855.xml> (Accessed 18/04/2020) Letter from Darwin to Gray on the 3rd of July 1860.

²³⁹ DARWIN, Charles, R., "Letter n° 3256". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-3256.xml> (Accessed 18/04/2020) Letter from Darwin to Gray on the 17th of September 1861.

²⁴⁰ DARWIN, Charles, R., "Letter n° 3342". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-3342.xml> (Accessed 18/04/2020) Letter from Darwin to Gray on the 11th of December 1861.

²⁴¹ DARWIN, Charles, R., "Letter n° 2998". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-2998.xml> (Accessed 18/04/2020) Letter from Darwin to Gray on the 26th of November 1860. Darwin was impressed by Gray's intellect and ideas, but not fully convinced.

Darwinism, usefulness and purpose come to the front again as working principles of the first order; upon them, indeed, the whole system rests. [...] To most, this restoration of teleology has come from an unexpected quarter, and in an unwonted guise; so that the first look of it is by no means reassuring to the minds of those who cherish theistic views of Nature. Adaptations irresistibly suggesting purpose had their supreme application in natural theology.²⁴²

Though Asa Gray may have misread Darwin's position, he did so as in the concluding remarks of his orchid book, Darwin used a teleological language to explain the causes of variations:

Although an organ may not have been originally formed for some special purpose, if it now serves for this end, we are justified in saying that it is specially adapted for it. On the same principle, if a man were to make a machine for some special purpose, but were to use old wheels, springs, and pulleys, only slightly altered, the whole machine, with all its parts, might be said to be specially contrived for its present purpose. Thus throughout nature almost every part of each living being has probably served, in a slightly modified condition, for diverse purposes, and has acted in the living machinery of many ancient and distinct specific forms.²⁴³

Darwin himself agreed that on this point he invoked teleology as he asked Gray for his opinion: "I shd like to hear what you think about what I say in last Ch. of Orchid Book on the meaning & cause of the endless diversity of means for same general purpose – It bears on design – that endless question"²⁴⁴. Gray believed that the sole use of the word "contrivance" was enough to install a link between chance and design.²⁴⁵ However, Darwin spoke of a purpose which appears after the appearance of the variation, and not prior to it. But Darwin's attitude to teleology changed again when he published *The Variation of Animals and Plants Under Domestication* (1868), as then he once more concluded on the question of variation and preordination that "we are brought face to face with a difficulty as insoluble as is that of freewill and predestination".²⁴⁶

In 1874, in a praising essay published by the journal *Nature*, Gray recognized the great contribution of Darwin to Natural science "by bringing back to it Teleology". He further admitted that instead of conferring a dichotomy between morphology and teleology, one "shall have Morphology wedded to Teleology".²⁴⁷ And, as per usual, Darwin was pleased with Gray's tribute to him and told him: "What you say about Teleology pleases especially, and I do not

²⁴² GRAY, Asa, « Evolutionary Teleology », 1862. <https://www.darwinproject.ac.uk/commentary/religion/essays-reviews-asa-gray/essay-evolutionary-teleology> (Accessed 18/04/2020)

²⁴³ DARWIN, Charles, R., *On the Various Contrivances by which Orchids are Fertilised by Insects*. London: John Murray, 1890, pp. 283-284.

²⁴⁴ DARWIN, Charles, R., "Letter n° 3662". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-3662.xml> (Accessed 18/04/2020) Letter from Darwin to Gray on the 23rd of July 1862.

²⁴⁵ GRAY, Asa, "Letter n° 3637". *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-3637.xml> (Accessed 18/04/2020) Letter from Gray to Darwin on the 3rd of July 1862.

²⁴⁶ DARWIN, Charles, R., *The Variation of Animals and Plants Under Domestication*. New-York, Orange Judd & Company, Vol. II, 1868, p. 516.

²⁴⁷ GRAY, Asa, "Scientific Worthies: Charles Darwin," *Nature*. Vol. 10, 4th June 1874, pp. 79-81, p. 81.

think any one else has ever notices the point. I have always said you were the man to hit the nail on the head”.²⁴⁸

In 1876, Gray published a collection of essays, *Darwiniana: Essays and Reviews Pertaining to Darwinism*, in which he persevered in his belief that Darwinism gave purpose to nature. To him, Darwin’s argument neither agreed nor disagreed with the idea of deity. He wrote that: “Darwinian evolution (whatever may be said of other kinds) is neither theistical nor non-theistical”.²⁴⁹ Gray had found in Darwinism grounds to support his belief rather than to refute it. During the same year, Darwin clarified his position in his *Autobiography*:

The old argument of design in nature, as given by Paley, which formerly seemed to me so conclusive, fails, now that the law of natural selection has been discovered. [...] there seems to be no more design in the variability of organic beings and in the action of natural selection, than in the course which the wind blows. [...] Another source of conviction in the existence of God, connected with the reason and not with feelings, impresses me as having much more weight. This follows from the extreme difficulty or rather impossibility of conceiving this immense and wondrous universe, including man with his capacity of looking backwards and far into futurity, as a result of blind chance or necessity. *When thus reflecting I feel* compelled to look for a First Cause having an intelligent mind in some degree analogous to that of man; and deserve to be called a Theist.²⁵⁰

Human’s capacity to reflect both on the past and the future led Darwin to believe that there must be some secondary process at work. Darwin remained bewildered for the rest of his life as he could not see nature’s brutality at the sole origin of human mind and conscience. In 1881, he spoke of this confusion: “[I]f we consider the whole universe, the mind refuses to look at it as the outcome of chance--that is, without design or purpose. The whole question seems to me insoluble”.²⁵¹ And it remained insoluble for the rest of his life. By conferring a closer look to the Darwin-Gray debates, it is obvious that both held sufficient basis to sustain their arguments and both hit limitations. Both their positions can be understood through the following quote:

Another way to say it is that for Darwin, design would be evidence *for* God, whereas for Gray, design would be evidence *from* God. Since Darwin believed that Nature provided examples that would give evidence for a God that either could not or would not eliminate suffering, he preferred to withhold total commitment to design. Gray, on the other hand, knew from Scripture the attributes of God, and therefore could accept the errors, evil, and suffering of Nature within the same theological context that he did for humans.²⁵²

²⁴⁸ DARWIN, Charles, R., “Letter 9483”. *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-9483.xml> (Accessed 18/04/2020) Letter from Darwin to Gray on the 5th of June 1874.

²⁴⁹ *Op.cit.* GRAY. *Darwiniana*. p. 379

²⁵⁰ *Op.cit.* DARWIN, *The Autobiography of Charles Darwin*. pp. 87, 93.

²⁵¹ DARWIN, Charles, R., “Letter n° 13299”. *Darwin Correspondence Project*. <https://www.darwinproject.ac.uk/letter/DCP-LETT-13299.xml> (Accessed 18/04/2020) Letter from Darwin to T. H. Farrer on the 28th of August 1881.

²⁵² *Op.cit.* MILES, “Charles Darwin and Asa Grey Discuss Teleology and Design”.

The reason for the discrepancy of opinion is that Darwin follows Paley's viewpoint in which from nature emerges proof of design and therefore of God, while Gray starts with the belief in God and sees God in nature as a result of faith.²⁵³

Darwin was not the only one who found it difficult to reconcile science and teleology. Rather, he inscribed himself in a very old conversation, from ancient Greece to Modern times, that has stirred the greatest of minds about the idea of design in nature. Darwin did not radically exclude teleology but believed that no divinity can be at the origin of nature's brutal forces. Darwin could not accept divine intervention in living organisms as natural selection proves it. However, Darwin seems to have been favourable to a universal design, a cosmological one, which would not impact individual specific processes, such as natural selection. Nature's brutality, evil, cannot have been designed. To summarize, living organisms, under the rule of natural selection, *can* have purposes without having been designed, and natural selection, *may* have been part of a designed Universe but does not act on design nor does it design in return. Darwin could not accept that the brute forces of nature were the sole origin of human conscience, nor accept that a benevolent God was at the origin of nature's brutality. Darwin does not seem to have a problem with an intelligent design in the whole of the Universe, but a detailed intelligent design is incompatible with his scientifically proven natural selection. If he is to accept that every little variation in living organisms is previously designed, it would preclude all the alternative variations. This is why perhaps, to explain civilized humans, Darwin evoked a secondary natural process.²⁵⁴ To this I believe Darwin did not want to create confusion in his theory. Therefore, he radically excluded an intelligent design as part of the evolutionary framework and based his whole theory on random variations. Then again, his frustration towards atheism makes it that he could not entirely erase the question of purpose in nature.

In 1838, while exploring an article in which the author criticizes Lamarck's materialism, Darwin commented on atheism and materialism in his *Old and Useless Notes*:

This Materialism does not tend to Atheism. Inutility of so high a mind without further end just same argument. Without indeed we are step towards some final end. – production of higher animals – perhaps, say attribute of such higher animals may be looking back. Therefore consciousness, therefore reward in good life.²⁵⁵

Darwin saw this materialism within a teleological frame, which he proved in his concluding remarks of *The Descent*:

²⁵³ ROBERTS, Michael, "Darwin's Doubts About Design". *Science & Christian Belief*. Vol. 9, 1997, pp. 13-127, p. 126.

²⁵⁴ *Supra*. p. 37.

²⁵⁵ *Op.cit.* DARWIN, *Old & Useless Notes*. p. 37.

I am aware that the conclusions arrived at in this work will be denounced by some as highly irreligious; but he who denounces them is bound to shew why it is more irreligious to explain the origin of man as a distinct species by descent from some lower form, through the laws of variation and natural selection, than to explain the birth of the individual through the laws of ordinary reproduction. The birth both of the species and of the individual are equally parts of that grand sequence of events, which our minds refuse to accept as the result of blind chance. The understanding revolts at such a conclusion, whether or not we are able to believe that every slight variation of structure, – the union of each pair in marriage, – the dissemination of each seed, – and other such events, have all been ordained for some special purpose.²⁵⁶

Here, inspired by Gray, Darwin defended his theory by comparing it to other scientific discoveries. The laws of ordinary reproduction do not prove the existence of God and does not deny it either. The same goes for his theory. Natural selection cannot prove the existence of God but does not deny its existence. It only denied the influence of divinity on natural selection. However, living organisms within nature have a purpose. All variations and transformations have a purpose. For instance, sexual selection, which is seldom studied, is a crucial part of Darwin's argument on human morality. Already in 1838, he questioned the purpose of sex:

I do not wish to say only cause, but one great final cause, nothing probably exists for one cause. My theory gives great final cause of sexes in separate animals: for otherwise there would be as many species, as individuals, & though we may not trace out all the ill effects, – we see it not the order in this perfect world, either at the present, or many anterior epoch. – but we can see if all species, there would not be social animals [...] hence not social animals, which as I hope to show is “probably” the foundation of all that is most beautiful in the moral sentiments of the animated beings. If man is one great object, for which the world was brought into present state [...] if my theory be true then the formation of sexes rigidly necessary.²⁵⁷

Darwin believed that the goal of sexual generations would be to produce the social animals and the final cause of social animals would be the emergence of moral sentiments, hence, moral beings. In *The Descent*, he proved that sexual selection in humans will allow the emergence of morality. By choosing mates according to varied physical and mental traits, humans will, in a sense, domesticate themselves through selective breeding.²⁵⁸ Humans domesticated themselves to choose the best mate possible through sexual selection. It undeniably suggests that sexual selection has a purpose. The idea of purpose is strengthened by his explanation of the sense of beauty in sexual selection, for while natural selection might be blind, living organisms are not. The sense of beauty being a fundamental component of sexual selection, but also, “when cultivated, the sense of beauty is manifestly a far more complex feeling, and is associated with various intellectual ideas”.²⁵⁹ And this purpose is to produce moral humans.

²⁵⁶ *Op.cit.* DARWIN, *The Descent of Man*. p. 613.

²⁵⁷ *Op.cit.* DARWIN, *Old & Useless Notes*. pp. 48-49.

²⁵⁸ *Op.cit.* DARWIN, *The Descent of Man*. p. 239.

²⁵⁹ *Ibid.* p. 359.

As a result, to grasp Darwin's thoughts, it is crucial to include Darwin's private letters and notes into the study, as without them, it would not have been possible to discover this puzzling paradox in his mind. And it is certainly due to this paradox that he turned into an agnostic at the end of his life. Indeed, when asked about his religious convictions, he answered thus:

It seems to me absurd to doubt that a man may be an ardent Theist & an evolutionist. [...] In my most extreme fluctuations I have never been an atheist in the sense of denying the existence of a God.— I think that generally (& more and more so as I grow older) but not always, that an agnostic would be the most correct description of my state of mind.²⁶⁰

Darwin stayed open to the possibility of a coherence between his theory and the existence of a higher being. But he was careful to exclude it from his theory, otherwise he would have rendered it paradoxical. Only by examining Darwin's own personal writings does it become clear that he was not an advocate for atheism, so much as it pained him to be associated to it. As a result of this extreme confusion, many recent scholars have inquired into Darwin's teleological penchant and attributed many reasons for this obscurantism.

Teleology has to be rethought as a wider concept than design. As Darwin proved, natural variations and moral sense can have a purpose without bearing divine intent. Just like for freewill, Darwin's theory endows a teleology within nature. It is explicit in his personal letters and notes and requires careful consideration to be deciphered in his theory. The small allusions to teleology that can be found in his published works created a rift between contemporary Darwinian scholars. Some, as Arnhart, advance that Darwin's explanation of biological adaptation resulting from natural selection establishes a scientific teleology.²⁶¹ Similarly, Gould argues that the optimism in the idea of evolutionary progress in itself suggests a teleological structure to biology. To describe this Darwinian aspect, he speaks of a "Panglossian paradigm". Others, such as Michal Ghiselin and James Lennox, though on opposite positions, believe that Darwin's teleological rhetoric is suggestive of the idea of teleology in Darwinism. To sustain this confusing aspect of Darwinism, I will now discuss the viewpoints of these scholars.

Arnhart points out that it would be a mistake to only assume that teleology means either natural theology or vitalism. He explains how in the history of science, the function of morphology is often explained by teleological reasoning:

The purposive organization and goal-directedness of organisms require explanatory principles that go beyond the laws of physics and chemistry; although they do not violate those physical laws. For biological science, therefore, teleological explanations and mechanistic explanations

²⁶⁰ *Op.cit.* DARWIN, "Letter n° 12041". *Darwin Correspondence Project*. Letter from Darwin to John Fordyce on the 7th of May 1879.

²⁶¹ *Op.cit.* ARNHART, *Darwinian Natural Right*. p. 244.

to not contradict but rather supplement one another, because they work at different levels of biological reality.²⁶²

According to this view, any mechanical explanation is only completed by a teleological explanation which indicates *why* it operates as it does. Therefore, Darwin does refer to a teleological reasoning in his theories. The only teleology that he excludes is one that infers that natural selection operates by divine providence. Natural selection is aimless and random. But the living beings which emanate from natural selection are purposeful. By simple syllogism, if the goal of humans is to be moral beings, if the goal of evolution is to produce higher beings, and if humans are the highest animals, therefore, the goal of evolution in general is the production of moral humans. Here is what Darwin writes in the conclusion of *The Origin*:

Variability from the indirect and direct action of the external conditions of life, and from use and disuse; a Ratio of Increase so high as to lead to a Struggle for Life, and as a consequence to Natural Selection, entailing Divergence of Character and the Extinction of less-improved forms. Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows.²⁶³

Above, Darwin justifies nature's brutality, deaths, and evils. While natural selection sacrificed uncountable numbers of organism so that the "most exalted object" may rise, it seems that from evil is born good, from death arises life. In other words, all is for the best. Natural organisms ruled by natural selection have a purpose, and adaptation allows the fittest to survive and reach the goal. Darwin confers the idea that everything in evolution is useful, every detail has an adaptative significance, even death. From an adaptative viewpoint, if every biological phenomenon has a goal and a significance, biology has to be linked to teleology. This optimism installed by Darwin at the end of *The Origin* led Gould and Lewontin to speak of a "Panglossian paradigm" after Professor Pangloss, a caricatural character of Leibniz in Voltaire's *Candide; or, Optimism*.²⁶⁴ In this article, the authors make a criticism of the contemporary use of Darwinian adaptation. What is of importance here is the link drawn from Darwin's theory to Dr. Pangloss. Indeed, Dr. Pangloss sees a benefit in every terrible event that occurred to the other characters of the novel, as he firmly believes in teleology. Dr. Pangloss also advanced that every event has an effect that can be identified. He rationalizes any calamity and believes it without doubt to be for the best in the best of all possible worlds. Just as Darwin does when he justifies natural selection's brutality. Those evils are necessary to conceive the most "exalted object" with the most exalted end being moral human beings. They were not the first to

²⁶² *Ibid.* pp. 243-244.

²⁶³ *Op.cit.* DARWIN, *The Origin of Species*. pp. 489-490.

²⁶⁴ GOULD, Stephen, J., & LEWONTIN, Richards, C., "The Spondyls of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme". *Proceedings of the Royal Society of London*. Vol. 205, N°1161, Series B, 1979, pp. 581-598.

associate Dr. Pangloss to Darwin's theory as there are obvious reasons to do so. While this excessive use of optimality is criticized by Gould and Lewontin, they did not want to dismiss adaptation, nor that this optimality suggests a teleological structure to evolution.

According to Robert J. Richards, "Darwin's language and metaphorical mode of thought gave his theory a meaning resistant to any mechanistic interpretation and unyielding even to his later, more cautious reflections".²⁶⁵ Indeed, for instance, Darwin's rhetoric as seen in the conclusion of *The Origin* is an implicit illusion to Biblical Scripture. The importance of Darwin's language in the association of his theory to teleology has been stressed by James Lennox in his article "Darwin was a Theologist" (1993). Indeed, Lennox proves how Darwin, in *Contrivances*, was a skilled rhetorician who by using teleological vocabulary re-invented teleology on a biological basis. To him, Darwin was a "skilled rhetorician" who knew "when to speak, but more importantly, when to be silent".²⁶⁶ Because the subject was contentious, Darwin used teleological language to hint progression and a purpose in evolution, rather than admitting it bluntly, at the risk of harming his entire theory:

The confusion in the nineteenth century about Darwin's attitude to teleology is argued to be a result of Darwin's teleological explanations not conforming to either of the dominant philosophical justifications of teleology at that time. Darwin's explanatory practices conform well, however, to recent defences of the teleological character of selection explanations. [...] By carefully examining Darwin's actual use of teleological explanation, one finds an explanatory structure which is at once irreducibly teleological, and at the same time unlike any of the standard forms of teleology in the nineteenth century²⁶⁷

Due to Lennox's confirmation, Michael Ghiselin published a reactionary article "Darwin's Language Might Seem Teleological, but His Thinking Is Another Matter" (1994), in which he argues that Darwin eliminated theological thinking from biology. He explains that Darwin used teleological metaphors only to prove that organisms have beneficial propensities which allow the species to prevail:

Darwin's biology was "teleological" only if the term "teleology" is defined in a manner that fails to recognize his contribution to the metaphysics and epistemology of modern science. His use of teleological metaphors in a strictly teleonomic context is irrelevant to the meaning of his discourse. The myth of Darwin's alleged teleology is partly due to misinterpretations of discussions about whether morphology should be a purely formal science. Merely rejecting such notions as special creation and vitalism does not prevent the pernicious effects of teleological reasoning, even at the present time.²⁶⁸

To him, Darwin used such language in a strictly teleonomic manner. The word "teleonomy" was invented in 1958 especially for Darwin. Indeed, designed to contrast teleology and disrupt

²⁶⁵ RICHARDS, Robert, J., *Was Hitler a Darwinian?* Chicago: University Press, 2013, p. 42.

²⁶⁶ LENNOX, James, G., "Darwin was a Teleologist". *Biology and Philosophy*. Vol. 8, 1993, pp. 409-421, p. 418.

²⁶⁷ *Ibid.* pp. 409, 448.

²⁶⁸ GHISELIN, Michael, T., "Darwin's Language may Seem Teleological, but his Thinking is Another Matter". *Biology and Philosophy*. Vol. 9, 1994, pp. 489-492, p. 489.

the latter's association to Darwinism, teleonomy is defined as the quality of apparent purposefulness and of goal-directedness of structures and functions in living organisms brought about by natural processes like natural selection, in contrast to being brought about by divine intention as teleology implies. Teleonomy is as a limited version of teleology.

The dissension between contemporary scholars on teleology and Darwinism is proof that Darwin's implicit allusion to Final Causes, perfectibility and progress in nature has had a tremendous effect over his theory. As Richards notes, "the language of Darwin's theory will at times say more – or less – than he himself might reflectively have wished to say".²⁶⁹ Whether it was intentional or not remains a questionable. However, his private discussions show that he was himself troubled by the subject, and it can definitely be seen throughout his published works if committed attention is given.

Thus, the language of "designed laws" invaded Darwin's theory. Additionally, Darwin promoted progress in nature, and patently conferred a purpose to evolution:

But throughout the animal kingdom we often find the same object gained by the most diversified means; this seems due to the whole organisation having undergone multifarious changes in the course of ages, and as part after part varied different variations were taken advantage of for the same general purpose.²⁷⁰

The same general purpose is to evolve into higher moral beings. Darwin considered moral impulses, as acquired by animal instinct, the goal of evolution without the influence of divinity. Therefore, the teleological goal of blind nature is to produce moral humans. To him, this view does not imply atheism, but just that nature produced organisms with the final purpose of generating moral beings. That is, beings endowed with consciousness and moral sense will be better equipped to fight nature's brutality, and it can already be observed, as civilized humans can now accommodate their surroundings to their need. In other words, a moral being will be able to fight natural selection. This is what Tort called the reversible effect. The goal of evolution is to produce moral beings that will counter natural selection. Natural selection engendered humans who reverse natural selection's influence. The inevitable progressive consequence of natural selection leading to the "most exalted object" is a proof that Darwin employed a teleological reasoning within nature in his theory. Darwin did not abandon teleology as he described and proved nature as having the goal of producing moral beings, that is humans.²⁷¹ Humans are the goal of nature. A variation may not have appeared for some special purposes, but as it now serves for the general goal, mentioned by Darwin in the quote above, it

²⁶⁹ RICHARDS, Robert, J., "Darwin's Place in the History of Thought: A reevaluation". *PNAS*. Vol. 106, Suppl. 1, 2009, pp. 10056-10060, p. 10056.

²⁷⁰ *Op.cit.* DARWIN, *The Descent of Man*. p. 288.

²⁷¹ *Op.cit.* RICHARDS, *Was Hitler a Darwinian?* p. 10.

is justified to admit that this variation is adapted to fulfil this goal. Variations randomly appear, and those who can fulfil the general goal prevail. Organism adapts to reach the general goal.

In this view, Darwin can hardly be considered as opposed to teleology. Darwin, the man, could not accept atheism and ended his life as being an agnostic. He promoted a theory of natural selection in which he only proved that, even if a higher being could exist, it has no influence whatsoever on nature's processes. To Darwin, biology, like any other scientific domain, strives separately from the influence of a higher intelligence. It does not signify the inexistence of a God, it only suggests that within nature's realm, there is no external force that rules. Then again, Darwin did speak of religious belief as characteristic of lower humans. This ambiguous position regarding religion is obvious, for religion was the expression of human's morality. But it is precisely because of Darwin's internal ambiguity that he radically excluded religious beings from nature. As secularism was still young in the nineteenth century, it was difficult to conceive a field without invoking God. But today any scientific researcher, regardless of his belief, would not ask themselves whether God created a theory for it to be true. This is what Darwin promoted. To him, biology and theology are separated, and should not interfere. But just because there is no influence of a higher intelligence in nature, it does not mean that nature does not have a goal. Therefore, Darwin recognized teleology within nature, and nature's goal is the emergence of moral creatures. Morality, to Darwin, is the highest and most noble creation of nature. Those who thought the theory of evolution as amoral, just because Darwin excluded the influence of divinity, were utterly mistaken. Darwin promoted morality, defended it, and hoped that it will prevail. To Darwin, morality gave meaning to nature.

Darwin's theory of moral sense admits a global reach. By articulating and endorsing many prevalent ethical theories within his, Darwin's name and his theory invaded new territories. Darwin biologized ethics, and by doing so, he opened a path for new discussions and new regards on already existing theories, such as those of Mill, Hume, Aristotle, and many more. The theory of morality engendered competing truths and integrated many domains. It is a great venture for a theory which was accused of undermining humans and social foundations. It remains that, with such assertions, Darwin also met much criticism. The idea that blind nature could define "right" and "wrong" was contentious. Nonetheless, as people were already familiar to Darwin's ideas, the book was better received than its predecessor. Darwin's ethical theories proved many common points with already existing ethical theories and therefore did not create a rupture. On the contrary Darwin unites many millennia-old dichotomies.

Indeed, by merging biology and morality, Darwin blurred the lines between human and animality, determinism and freewill, nature and nurture, values and facts, tradition and progress, brutality and culture. Humans are descendants, like all animals, of a common ancestor. As a social animal, humans acquired a moral sense from social instincts and social norms. Therefore, morality is biology, and moral values are facts. But because humans have evolved to reason, they are able to reflect and deliberate on moral values. They are not entirely determined by nature, they have freewill to decide, and actions can be judged. Therefore, humans have freewill within nature. By deliberating on moral values, humans created moral norms and educated others to best fit them to the benefit of all. Hence, from natural abilities arises nurture, and from instincts arises culture. Humans' moral sense led them to appreciate nature's beauty, and they imitated what nature gave them, created arts and acquired a sense of aesthetically "right" and "wrong". The transcendental notion of morality is actually only the effect of one. Darwin did not destroy human foundations, on the contrary he recognized their necessity. He did not render morality aimless, as to him, humans are still to evolve into higher moral beings. Humans have a purpose and progress to fulfil this end. He fashioned a world in which there is only continuity and no rupture, to the point that he even embedded the blind nature to progress and optimism. He rationalized all transcendental conception and reconstructed them within nature's realm.

Darwin also illustrated this way that moral humans are the purpose of evolution. By doing so, he somehow adopted a teleological reasoning, which is still of current relevance. The only rupture Darwin ever brought was scientific evidence to already existing concepts and ideas. Darwin promoted a global continuity, from his young mind to his older self, from animality to humanity, from his evolutionist theory to existing theories and between already existing concepts. There is in Darwin an endeavour to reconcile all human aspects and concepts.

III. A Practical Theory of Morality

This study now stands as proof and substance for a Darwinian moral continuum. It is possible to admit that Darwin's ethical contemplations are of great meaning to human progress and to the history of moral thought. The theory of morality constitutes an immutable basis upon which human societies are to be established. Although the nature of his theory explicitly and implicitly mirrors the general state of its time, Darwin built a legacy born out of longstanding dilemmas, powerful enough to change the course of humanity. But above all, even though Darwin underwent a series of continual trials, his scientific discovery transcended its purview and reached shores far beyond his imagination. As a result, this last chapter will move to examine the theory of morality's practical scope. To what extent has this moral continuum influenced human societies on the long run? Whilst Darwin's scientific vindications were not immune to all fluctuations of time, they did set a path for broader questions still of great relevance today.

This chapter will be arranged around the question of animal ethics and environmental ethics. The first part will address the Victorian concern for the matter. However, the interest in animal and environmental welfare was ambivalent during the Victorian era, and so was the reaction to Darwinian revelations. A second part will evaluate the extent of Darwin's advocacy of animal welfare in his publications as well as in his direct involvements. Indeed, Darwin very rarely publicly engaged in social debates, yet we will see that he held at heart to end sufferings. This part will illustrate a more "socialist" reading of Darwin's moral theory. In a third and final part, I will venture to highlight the power and the consequences of Darwin's moral thoughts on modern minds. I will argue that the link between evolutionary science and environmental ethic shaped human's attitude towards nature. As he defended a secular ethics rooted in biology, and as all societies are defined by moral norms, can Darwin's moral theory advocate for a better society? Overall, the aim is to widen the scope of his theory's moral continuum.

The reason why I have chosen to speak of animal and environment is that Darwin convincingly argued that the goal of natural selection was to produce moral humans, and that it was only when humans had reached a sufficient level of intellectual power that they would come to actualize this ultimate aim. But he also said that the closer humans will get to this goal, the more they would extend their sympathies to all living creatures. Therefore, by simple syllogism, the purpose of nature is inter-species altruism. A position which in itself may be controversial and paradoxical, especially concerning meat. Moreover, if humans, animals by nature, are meant to morally act and respect all animals, they are also bound to protect their

home. In this view, nature produced moral humans to *protect itself*. But again, the idea of protecting all living things as well as their environment is not Darwin's, a point which once more may prove the continuity in Darwin's theory to his century's concerns. The question remains, if nature is leading humans in a particular path, then nature is producing a specific society which would be, according to nature itself, the best one possible. This utopianism emanating from the sole idea that nature purposefully created the moral humans led many to consider a world run by Darwin's ideas. Darwin's moral theory breaches politics as well.

Before engaging into the heart of the subject, I will briefly mention the history of human relation to animals and the environment, only to situate the Victorian era into the discussion. In the history of mankind, if there were one permanent and significant dividing line which had endured and rooted itself in all human minds, it would be that between humans and animals. Metaphysics, religions and moral norms advocated for the immutable bridge between humans and other living creatures, and this dichotomy became almost *a priori* truth. However, humans did not always see animals as their inferiors, on the contrary, some religions worshipped animals. But the line between humanity and animality was one deeply anchored in human identity. Moreover, humans did not remain credulous at the sight of common traits between humans and apes. Because of the ape resemblance to humans, they had been the centre of century-old discussions on human nature and human gratification. With the rise of Christianity, animals became subordinates and, more precisely, monkeys became the image of evil, sin and degeneracy. All that is "apish" – violence, brutality and wilderness – is to be despised and discarded. In the context of imperialism and colonial expansion, uncivilized humans were associated to the bestial nature of apes. Monkeys were vilified and became the symbolic vehicle of what ought not to be.²⁷² The European thought themselves "civilized" and their morality taught them to control any "animal" impulse. Of course, no one denied the similarity between humans and animals, especially concerning bodily functions with animality, but they ought to be controlled and kept private. Animals came to be defined by their uses to humans or their characteristics, and they were treated accordingly.²⁷³

The emergence of the theory of evolution along with the idea of ascent to civilization and reason furthered this separation, and now, even some humans were considered as lower, closer to animals. Darwin associated animality to primitive humans and "savages", either in customs or physical traits. As Thomas Huxley fiercely advanced during his memorable confrontation with Samuel Wilberforce, human common ancestry with apes does not "diminish

²⁷² Apes are relevant examples here as Darwin was widely associated to them, particularly in caricatures.

²⁷³ CORBEY, Raymond, *The Metaphysics of Apes*. Cambridge: University Press, 2005.

man's divine right of kinship over nature; nor lower the great and princely dignity of perfect manhood, which is an order of nobility, not inherited, but to be won by each of us, so far as he consciously seeks good and avoids evil".²⁷⁴ Huxley continued to defend this position later on:

No absolute structural line of demarcation [...] even the highest of faculties of feeling and intellect begin to germinate in lower forms of life. At the same time, no one is more strongly convinced than I am of the vastness of the gulf between civilized man and the brutes; or is more certain that whether from *them* or not, he is assuredly not *of* them.²⁷⁵

To Huxley, much like Darwin, the fact that there is a unity of origin between humans and their closest relatives does not imply "the brutalisation and degradation of the former".²⁷⁶ Darwin did promote a vision of competitive nature, where humans stand as the most evolved and did not miss to remind his readers of human superiority over animals, the same way he proved the cultural inferiority of the less civilized races. Sigmund Freud (1856-1936) took after Darwin's view to show how "the primitive man virtually survived in every individual" with a series of theses on animal reminiscence in human psyche.²⁷⁷ The point here being that it is crucial to understand that Darwin never established humans and animals on the same level. There is a difference in degree but not in kind.²⁷⁸ He himself used human superiority to counter criticism. Darwin's depiction of the natural world seems to have provided further ground to sustain the division between humans and the others. Therefore, the question is *to what extent* should humans altruistically consider animals. How does evolutionary ethics apply to animal from Darwin's standpoint? Is there an inherent rupture? Can animals sense immorality? It is often said that Darwin dehumanized humans, but by doing so, he humanized animals. Yet this precise point installs a profound dilemma as humans are naturally animals, but they are distinct from animals, and animals cannot be defined as different from humans and similar to humans. By humanizing animals, we also *de-animalize* them, which in itself is paradoxical. This tendency of conferring to animals human characteristics had been pointed out by Alfred Russel Wallace who rejected some of Darwin's ideas on grounds of anthropomorphism.²⁷⁹

The question of environmental ethics and ecology is much less troubled. Because ecological thought is derivative of many established currents – namely philosophy, politics,

²⁷⁴ HUXLEY, Thomas, H., "On the Zoological Relations of Man with the Lower Animals". *Natural History Review: A Quarterly Journal of Biological Science*. Vol. 1, 1861, pp. 67-84, p. 68.

²⁷⁵ HUXLEY, Thomas, H., *Evidence as to Man's Place in Nature*. New York: Appleton and Company, 1863, p. 128.

²⁷⁶ *Ibid.* p. 130.

²⁷⁷ FREUD, Sigmund, *Group Psychology and The Analysis of the Ego*. London: The Hogarth Press, 1949, p. 92.

²⁷⁸ *Supra.* p. 59.

²⁷⁹ WALLACE, Alfred, R., "Letter n°5140". *Darwin's Correspondence Project* <https://www.darwinproject.ac.uk/letter/DCP-LETT-5140.xml> (Accessed 23/05/2020) Letter from Wallace to Darwin on the 2nd of July 1866.

ethics – placing Darwin’s morality within the scope of ecological ethics will add another layer to its continuum. The first ecological thoughts stem back to Aristotle and more particularly to his student Theophrastus (371-288 B.C). It is only by the eighteenth century that true interest is found on the matter, especially with Carl Linnaeus (1707-1778) who spoke of “economy of nature”. By the end of the nineteenth century, scientists started looking beyond individual species and asked questions about how a whole system of living and non-living things changed over time. The detailed, wide-ranging, and data-driven work of Darwin, Lyell, Wallace and others, inspired many to investigate the complexities of the living world. Darwin is often associated to the consecration of the discipline given his enormous and revolutionary contribution to natural science. And of course, Darwin’s German defender, Ernst Haeckel (1834-1919) coined the word “ecology”. English botanist Arthur Tansley (1871-1955) founded the first professional society of ecologists and was the first editor of journal *Ecology*. He is remembered for one word: “ecosystem”. The first who predicted climate change was Prussian polymath Alexander von Humboldt (1769-1859), whose writings Darwin read during his voyage on the Beagle. Most scientists involved in ecological studies understood that ecosystems must be preserved. Then, there must be an ethic behind it all, and this study will investigate Darwin’s contribution to it.

1. Victorians, Animals & Nature

The relation between animals and humans is a profound one, but best embodied during the nineteenth-century's scientific development, when, regardless of Darwin's theory, deep epistemological dilemmas arose on the matter. Henceforth, I will begin by speaking of the general Victorian concern for animal and environmental welfare. Then, I will look into those, especially women, who found a voice in anti-cruelty movements. Finally, I will explore some caricatural criticism directed to science and Darwin. It must be acknowledged that, although Darwin advocated for animal welfare, he was deeply involved in artificial breeding, insect collecting and hunting, he was a meat-eater and above all, he was a true believer in scientific progress.

During the Victorian era, the establishment of a morally ordered society was primordial. Victorians wanted to create the perfect moral society, and by wanting so, investigated domestic interests. Pets were integrated in the daily life, an emotional bond was created between owners and their animals encouraged by new forms of consumerism. There was also an infatuation for exotic beasts exported from the foreign lands. Zoos and museums were filled with curious animals to entertain and educate the people. Animals of all sorts became part of the Victorian culture. Moreover, with the bonds created with animals and the rise of social movements, many found in non-human cruelty reason to fight against all kinds of oppression, regardless of kind.

Since the late eighteenth century, significant change of heart towards animals were transcribed within the legal system. People started to see animals as more than mere property and recognized their ability to suffer. In 1781, English philosopher and barrister Jeremy Bentham (1748-1832) writes his *Introduction to the Principle of Morals and Legislations* in which he addresses the legal system on animal cruelty. He argues for anti-cruelty legislation on grounds of sentience as he writes that "the day *may* come, when the rest of the animal creation may acquire those rights which never could have been withholden from them but by the hand of tyranny".²⁸⁰ Bentham advocates that animals should be brought beyond the realm of property: "on account of their interests having been neglected by the insensibility of the ancient jurists, [animals] stand degraded into the class of *things*".²⁸¹ The question was not whether animals can reason but whether or not they suffer. Bentham tried by the same means to bring awareness to the ills of slavery and to defend the universal right of absence of pain. His plea had been heard and some measures followed. In 1809, Lord Erskine was the first legislator to

²⁸⁰ BENTHAM, Jeremy, *An Introduction to the Principles of Morals and Legislation* [1789]. Oxford: Clarendon Press, 1907, p. 311.

²⁸¹ *Ibid.* p. 310.

bring anti-cruelty bills into parliament. The event marked the first time the question of animal cruelty was heavily debated:

They [Animals] are created, indeed, for our use, but not for our abuse. Their freedom and enjoyment, when they cease to be consistent with our just dominions and enjoyment, can be no part of their natures; but whilst they are consistent I say their rights, subservient as they are, ought to be as sacred as our own [...] the bill I propose to you, if it shall receive the sanction of Parliament, will not only be an honor to the country, but an era in the history of the world.²⁸²

Though the bill was defeated in the House of Commons, it passed in the House of Lords and paved the way for a new perspective on animals. By 1824, Richard Martin founded the Society for the Prevention of Cruelty to Animal (RSPCA). In 1863, their journal *Animal World* published the following statement:

Meanwhile let us bear in mind that the responsibility is now fairly on the government (for which it cannot escape, if it would), and that a population of living, sensible being, five times more numerous than that of human beings, are having their plea for justice heard by the Government.²⁸³

At some point, Victorians argued that animal rights were to be regulated by the state. A point on which John S. Mill disagreed. In *Principle of Political Economy* (1848), he argued that “it is by the grossest misunderstanding of the principle of liberty, that the infliction of exemplary punishment on ruffianism practiced towards these defenceless creatures, has been treated as a meddling by government with things beyond its province”.²⁸⁴ Mill’s *laissez-faire* politics led him to insist that it is not the government’s affair but it belongs to the field of education. He ranged himself with those at the time who thought that involving government in animal welfare would be prejudicial to human liberties. Nonetheless, Mill defended animals with his “Greatest Happiness Principle”. The question of animal welfare seems to have stood for many political discourses, some more radical than others; such was the case for the vegetarian movement.

The Victorian involvement in morality led them to consider uncleanness as a sign of moral degeneracy, especially as the century had lived through multiple outbreaks of disease. The lack of hygiene was not only a source of infections and diseases, but also, more generally, a reflection of the prevailing immorality. And some considered that an alternate lifestyle was needed to cure the society’s immorality. They found their answer in vegetarianism. The proponents of the movement came to believe that meat was harmful to health. Moreover, not eating animals meant not killing another living creature, which has in itself a moral value, let

²⁸² *The Parliamentary Debates from the Year 1803 to Present Time*. Ed. T. C. Hansard. London: Longman, Vol. XIV, 1812, pp. 555-556.

²⁸³ “Contagious Diseases (Animals) Act”. *Animal World*. 1869. Cited from FEUERSTEIN, Anna, *The political Lives of Victorian Animals: Liberal Creatures on Literature and Culture*. Cambridge University Press: 2019, p. 31.

²⁸⁴ MILL, John, S., *The Principle of Political Economy* [1848]. Ed. W. J. Ashley. London: Longmans, Green & Co, 1923, p. 958.

alone that not consuming meat meant less expenditure. In 1847, politician Joseph Brotherton formed the Vegetarian Society while his wife published, in 1812, the first vegetarian cookbook, *Vegetable Cookery*. The society held that being vegetarian meant living a simple life while eating pure food and displaying humanitarian ideals and strict moral principles.²⁸⁵ They advocated for vegetarianism on health, economic and ethical grounds. The movement is said to have also been influenced by other cultures such as Hinduism. John Oswald (1755-1793), disillusioned with the violence of imperialism, adopted Hindu principles and fostered vegetarianism. In his *The Cry of Nature or, An Appeal for Mercy and to Justice, on Behalf of the Persecuted Animals* (1791), he argued like French philosopher Rousseau that modern society was in conflict with human nature. He religiously, politically and philosophically defends animals as he writes that it would cause the “destruction of our happiness which is wounded by every act of violence”.²⁸⁶ Another supporter of the French Revolution, Joseph Ritson (1752-1803), believed that eating meat induced viciousness in humans and may even contribute to war: “the use of animal food disposes man to cruel and ferocious actions in a fact to which the experience of ages gives ample testimony”.²⁸⁷ Overall, vegetarianism stood against violence and promoted harmony. And while animal defenders wanted to establish a peaceful relation between animals and humans, some, as the environmentalists, took it to the next level and proselytized a global harmony.

As mentioned above, concern for the environment stems far back in history. However, by the seventeenth century, two main schools of thought dominated the early ecology; Francis Bacon’s “imperial ecology” and the Arcadian ecology.²⁸⁸ British Carl Linnaeus partook in the “imperial ecology” which contrary to Arcadian ecology, held that humans must dominate nature and all its organisms. Linnaeus’ work in taxonomy was of great influence on Darwin and his contemporary science. But as science progressed, Victorians began acknowledging the importance of protecting environment against pollution and deforestation, given that all scientific discoveries invaded Victorian literacy. Lyell in *Principle of Geology* (1830-33) spoke of geology as “the science which investigates the successive change that have taken place in

²⁸⁵ SPENCER, Colin. *The Heretic’s Feast: A History of Vegetarianism*. University Press of New England, 1995, pp. 262-266.

²⁸⁶ OSWALD, John, *The Cry of Nature or, An Appeal to Mercy and Justice, on Behalf of the Persecuted Animals*. London: J. Johnson, 1791, p. 82.

²⁸⁷ RITSON, Joseph, *An essay on abstinence from Animal Food as a Moral Duty*. London: Richard Phillips, 1802, p. 86.

²⁸⁸ The Arcadian ecology, from the Greek mountainous region Arcady, advocated for a harmonious co-existence between all organisms and with nature. It stands against the idea of dominating nature. Contrary to this proposal, Imperial ecology defended humans’ divine right over nature as to them nature exists to the benefit of humans and therefore humans must learn to manage nature. The latter view is closer to utilitarianism.

the organic and inorganic kingdoms of nature”.²⁸⁹ He showed in the process that earth is much older than what Christian scriptures defend. By doing so, Lyell scientifically undermined the place of humans in nature as they are to be considered as recent events of a much older earth. Lyell noticed that humans may have geomorphological influences. He mentioned how humans changed atmospheric conditions through deforestation and, by doing so, also induced the disappearance of some species.²⁹⁰ At this point, Victorians only recognized human influence but did not know to what extent humans could harm nature over time. Nonetheless, the interest in the matter, especially by Lyell’s, brought forth a pivotal new lead on the question of humans’ place, value and relation to nature.

The effects of industrialization and urbanization did not go unnoticed by other Victorians less keen on knowing the effect and more interested in stopping the general alteration of nature. One of the earliest responses to the effect of pollution can be seen in Jesse Oak Taylor’s *The Sky of Manufacture* (2016) in which he mentions many Victorian authors who tried to spread environmental awareness. He speaks of those, like Charles Dickens (1812-1870) and George Eliot (1819-1880) who, through their realism, criticize the polluted Victorian climate; those, like Robert Louis Stevenson (1850-1894) and Bram Stoker (1847-1912), who use supernaturalism to show how Victorians adapted to artificial environments, notably invoking fossil fuels, polluted bodies; and those, like, Virginia Woolf (1882-1941), Joseph Conrad (1857-1924), Alice Meynell (1847-1922) and Richard Jefferies (1848-1887) who directly refer to the emergence of anthropogenic climate change.²⁹¹ We may also mention *News from Nowhere* (1890) in which by combining his utopian socialism and science fiction, William Morris (1834-1886) depicts a utopian ecological London with inhabitants in harmony and justice with nature. Environmental awareness has also been used by Edward Carpenter (1844-1929) to foster socialism and overthrow the capitalistic effects of industrialization and the exploitation of natural resources. In *Civilisation, Its Cause and Cure* (1921), he praises “the life of an open air, familiarity with the winds and waves, clean and pure food, the companionship of animals” to prove how a socialist life may be advantageous.²⁹² Environmental welfare, much like animal welfare, became a political vector. Others like John Ruskin (1819-1900) directly

²⁸⁹ LYELL, Charles, *Principles of Geology*. 3rd ed. London: John Murray, Vol. I, 1835, p. 46.

²⁹⁰ ADKINS, P. & PARKINS, W., “Introduction: Victorian Ecology and the Anthropocene”. *Interdisciplinary Studies in the Long Nineteenth Century*. Vol. 19, Iss. 26, 2018, p. 3.

²⁹¹ JESSE OAK TAYLOR, *The Sky of Our Manufacture: The London Fog in British Fiction from Dickens to Woolf*. University of Virginia Press: 2016. Kate Nielson in her dissertation “Contamination and Transgression in Victorian Fiction, 1851-1900” shows many of these authors contextualized their works in broader discourse on waste with figures such as John Ruskin, Mill, Henry Mayhew and Darwin.

²⁹² CARPENTER, Edward, *Civilisation, Its Cause and Cure*. London: George Allen & Unwin, 1921, p. 36.

criticized pollution from an ethical and religious standpoint, notably in *The Storm of the Nineteenth Century* (1884).²⁹³ Victorians were clearly aware of the climate change and its human cause. Some used it to convey political criticism, especially those against the rise of capitalism but also against the hegemonic power of British imperialism, given that colonies had gone under tremendous amounts of ecological changes, with plantations, slavery and indigenous genocides. Of course, Darwin's publications became key components to ecological welfare, but also to animal rights, though the latter created some controversies.

The particularity of these two movements, but more especially the animal-related one, is that they brought together people from different social classes and political backgrounds – socialists, women, men, workers, upper-class members – and they all worked together to end misery and oppression. Animal welfare enabled women and the working-class citizens to find a political voice. The social movements and animal welfare movements are interconnected, and the margins defended animals as they understood their oppression.

Animal activism strove within the RSPCA and the Vegetarian Society but was magnified in the anti-vivisection movements. Already in 1835, physiologist Marshall Hall (1790-1857) emphasized the ethical dilemma that the scientific community was facing regarding experiments on animals. He outlined five principles in which he advanced that scientific experiments on animals must be done on the least sentient animals, kept for new experiments, must have a defined objective and should not be repeated.²⁹⁴ Questions of medical experiments were later central in Victorian medical discussions. Anti-vivisectionists were not only against animal pain but also against those who would perform or witness it. They opposed the psychological and moral effect of such performance. The later argument was more relevant to those who adopted a Cartesian view in which animals are like automata, or even to some Christians, who believed animals are created for the sole purpose of serving humans.

In 1875, Frances Power Cobbe founded the National Anti-Vivisection Society (NAVS). They published series of articles, pamphlets, campaign posters and petitions. And it was fruitful as soon enough, politicians, social reformers, doctors, aristocrats, and clergymen took the matter seriously. The high level of female participants in this movement may be due to Cobbe's own involvement in feminist causes and as it became a vehicle to fight patriarchy, given that most scientists were men. Darwin had sent her a copy of *The Descent* before it was published. She says that "it inspired [her] with the deadliest alarm". She saw in Darwinism a powerful

²⁹³ DAY, J., Briand, "The Moral Intuition of Ruskin's 'Storm Cloud'". *SEL Studies in English Literature 1500-1900*. Vol. 45, N°4, 2006, pp. 917-933.

²⁹⁴ HALL, Marshall, "On the Principle of Investigation in Physiology". *Circulation*. Vol. 48, 1835, pp. 651-654.

argument to fight for animals.²⁹⁵ Even though she disagreed with Darwin on the implications of his theory, she published a book named *Darwinism in Morals* (1872).²⁹⁶ However, their relation deteriorated on the question of vivisection. She used Darwinism to foster anti-vivisection by actually criticizing Darwin:

The truth seems to be that these modern Men of (merely physical) Science are so absorbed in their material researches that they have actually dropped out of sight all the moral and spiritual sciences together; and they go about in the footsteps of Mr. Darwin, endeavouring to gather the grapes of Morality off the thorn of Physics and Zoology.²⁹⁷

She pursued this argument in her *Modern Rack* (1889) by actually including two published letters she wrote answering Darwin's position on the matter. As we will see further in the study, Darwin stood against animal cruelty, but he also acknowledged the scientific necessity of vivisection. Cobbe was answering a letter Darwin published in *The Times* in 1881 in which he defends physiology in the name of scientific progress which benefits all species.²⁹⁸

Another, yet not surprising, proponent of vivisection was Wallace. Wallace was known to be a defender of marginal causes and he did not fail to criticize vivisection:

I have for some years come to the conclusion that nothing but *total abolition* will meet the case of vivisection. I am quite disgusted at the frequency of the most horrible experiments to determine the most trivial facts recorded in the publication of scientific societies month by month, evidently carried on for the *interest* of the 'research' and the *reputation* it gives.²⁹⁹

Wallace was a socialist and always criticized privileges based on social background. This may be the reason why he mentioned the "reputation" that some may be defending. Wallace believed that human sensitivity was higher than for other animals:

I have a fundamental disgust for its brutalizing and immoral effect. [...] I myself am thankful to be able to believe that even the highest animals below ourselves do not feel as acutely as we do, but the fact does not in any way remove my fundamental disgust at vivisection as being brutalising and immoral.³⁰⁰

However, to him, "animal suffers as much as we do or only half as much" but that it was "unworthy of an evolutionist, or of a believer in God" to inflict such pain to any living creature.³⁰¹ Wallace from his modest social background had made use of Darwinism to advocate for social, gender and racial equality. Therefore, it is unsurprising to see him defend animal

²⁹⁵ *Op.cit.* COBBE, *Life of Frances Power Cobbe*. p. 127.

²⁹⁶ *Supra*. p. 56.

²⁹⁷ COBBE, Frances, P., *Modern Rack*. London: Swan Sonnenschein, 1889, P. 68.

²⁹⁸ *Infra*. p. 109.

²⁹⁹ *The Daily News*. London: 20th September 1905, p. 9. Letter from Wallace to Dr. W. R. Hadwen in September 1905.

³⁰⁰ WALLACE, Alfred, R., *The World of Life*. London: Chapman & Hall, 1914, p. 381.

³⁰¹ *Ibid.* p. 383

rights, albeit he had concocted his own version of the theory. But in this case, it might be of little relevance as he agreed with the common ancestry of all animal species.

The anti-vivisection movement was rejected by many scientists, among which was Darwin on grounds of scientific advancement. There were endless petitions and debates over the matter which added much to the already polarized Victorian century, to the point that it instigated physical violence. The accounts made by many of the cruelty of vivisection increased sympathy for animals. As the movement grew, popular arts, novels and other forms of expression joined it. For instance, in 1879, *Punch* published a caricature in which is represented a human being about to be vivisected (Annex 1).³⁰² As the image dates from 1879, we can assume that Darwinism had an impact on it, given that it had blurred the animal-human boundaries. It sells the message that humans deserved to be vivisected for the good of science, just as animals are. In 1875, the Cruelty to Animal Act passed which regulated medical practice on vivisection, much to the dissatisfaction of anti-vivisectionists who wanted a total abolition given that they could not accept that medicine could stem from such unethical acts.³⁰³ It created distrust between patients and medical professionals who were capable of doing such cruel acts. Echoing this caricature from an existentialist perspective, Robert L. Stevenson, in his posthumously published *The Scientific Ape* (1880s), sided with Cobbe and criticized the metaphysical implications of Darwin's views on vivisection.³⁰⁴ He portrays a dystopian world where apes aim at vivisecting a human being in the name of progress. The vivisection cut may be considered as "a metaphysical cut by which the scientific experimenter tries to disavow his or her relation to the rest of animal life".³⁰⁵ As the cut goes beyond physics, it does no longer consider the biological similarity between humans and apes. Stevenson uses some of Darwin's words from his 1881 published letter in *The Times* and related them to the ape-vivisector. Darwin spoke about the "incalculable benefits" which are "derived from physiology, not only by man, but by lower animals."³⁰⁶ The ape says "that argument is only fit for the monthly magazines. Say that they do suffer. Well, they suffer in the interest of a lower

³⁰² *Infra*. Annexe. Figure 1: "Vivisection!". *Punch*. 6 September 1879, p. 106. *Punch* magazine was a leading comic journal in Britain. It was one of the cultural arenas in which all public concerns and debates were depicted. It mainly focussed on the middle-class readers.

³⁰³ SWAIN, Emma, "Popular Representations of the Victorian Vivisection Debate in *Punch* Magazine". Diss. Belfast: Queen's University, 2017.

³⁰⁴ PARFECT, Ralph. "Robert Louis Stevenson's 'The Clockmaker' and 'The Scientific Ape': Two Unpublished Fables". *English Literature in Transition, 1880-1920*. Vol. 48, N°4, 2005 pp. 387-403. The Metaphysical Ape was written in the 1880s probably around the time Darwin's article was published in *The Times* in 1881. It was removed from a collection of his fables, most probably because of its controversial nature.

³⁰⁵ DANTA, Chris, "The Metaphysical Cut: Darwin and Stevenson on Vivisection". *Victorian Review*. Vol. 36, N° 2, 2010, pp. 51-65.

³⁰⁶ *Infra*. p. 109.

race, which requires help: there can be nothing fairer than that [...] we shall doubtless make discoveries which will prove useful to them”.³⁰⁷

Most criticism and dystopian stories that turned against Darwin involved apes. Indeed, the cover of my study is a satirical image which represents apes being introduced in a gentlemanly way to another ape, resembling Darwin.³⁰⁸ They are depicted as living in a polite society, dressed in fashionable clothes and reading. This *Punch* caricature is aimed at satirizing Darwin’s moral theory. The image admits a sense of morality, sociability and aesthetic to animals, something which Darwin did. The fact that they are placed in an intellectual salon induces the idea of the improvement of apes.

A similar stance can be seen in an 1876 *Punch* caricature, titled “Science and Stupidity”, with science misspelled to emphasize their message to the vivisectionists (Annex 2).³⁰⁹ It represents a policeman carrying the vivisection bill and asking the scientist to end vivisection. They reply that their experiment will “alleviate the sufferings of thousands of our fellow-creatures”, thus, justifying the act on grounds of scientific progress. Ending vivisection is ending progress. Scientists do not vivisect out of immorality but for the greater good of all. In the name of science, such acts were necessary. As Darwin dethroned human species from their hegemonic position, most animal activists agreed with him as the line between humanity and animality was blurred. But even those who sided with Darwin gained half-support as Darwin was a proponent of animal anti-cruelty but also of the benefit of science.

The RSPCA’s influence reached North America with Henry Bergh (1813-1888) as a key figure of the American anti-animal-cruelty movement. However, he was ridiculed, much like Darwin. In a caricature titled “Mr Bergh to the Rescue”, both were satirized (Annex 3).³¹⁰ Indeed, Bergh appears to be reprimanding Darwin for wanting the gorilla’s pedigree. Bergh’s defence for the gorilla is mocked, as a reference to his excessive protectiveness of animals. Though this cartoon is American, it perfectly depicts the state in which Darwinism stands regarding animals. While Darwin promoted a world divided in degree not in kind, he did not elevate animals to the same degree as humans. The rift between humanitarian ethics and scientific progress is reflective of the Victorian ambivalence. The next part will prove that, even though Darwin’s ethical thoughts on animal are reflective of his era, he did protect animals and science to the best of his ability.

³⁰⁷ *Op.cit.* PARFECT. p. 402.

³⁰⁸ “Preface”. *Punch*. 1861.

³⁰⁹ *Infra*. Annexe. Figure 2: “Science and Stupidity”. *Punch*. 29th of July 1876, p. 40.

³¹⁰ *Infra*. Annexe. Figure 3: NAST, Thomas, “Mr Bergh to the Rescue”. *Harper’s Weekly*. 19th August 1871.

2. Darwin in Relation to Animals

Darwin's holistic view of the natural world raises the status of animals within human affairs. Empathy for animals is not just a human imperative, but a rational one as well. The more evolved the intellectual capacities, the more the moral sense is developing towards the ultimate goal.³¹¹ A first part will describe Darwin's moral thoughts regarding animals in his notebooks and published works. In a second part, Darwin's direct public interventions will be studied to show how passionate he was on the matter. In a last part, I will bring forth the supposed ambivalence that emanated from Darwin's position. Overall, the aim is to show how Darwin's ethics of the matter of animals is the true embodiment of an ethical dilemma, in the correct sense of the term, as Darwin struggled between animal welfare and scientific progress, but ultimately found the adequate solution. Especially as both science and morality reflect humans' higher moral faculties, the question of vivisection became a moral conundrum.

From reading his notebooks, it becomes increasingly evident that Darwin was revolted by cruelty in general. In 1837, he writes: "Animals, our fellow brethren in pain, disease, death, suffering & suffering, & famine, our slaves in the most laborious works, our companions in our amusements. They partake from our origin in one common ancestor; we may be all melted together".³¹² Darwin's feelings about animals are reflected in most of his published writings, but foremost in *The Descent*:

Sympathy beyond the confines of man, that is, humanity to the lowest animals, seems to be one of the latest moral acquisitions [...] This virtue, one of the noblest with which man is endowed, seems to arise incidentally from our sympathies becoming more tender and more widely diffused, until they are extended to all sentient beings. As soon as this virtue is honoured and practised by few men, it spreads through instruction and example to the young, and eventually becomes incorporated in public opinion.³¹³

Here, we can assume that the animal rights movements which invaded the Victorian society are, according to a Darwinian reasoning, an illustration of how humans attained the highest of stages of morality. But more crucially, when he writes that "humanity" is one of the last acquisitions of the lower animals, he implicitly gives a sense of humanity to animals. It may be read as a form of humanization of some animals, or as Wallace said, a form of anthropomorphism.

Darwin assesses that the mental capacities of "higher mammals" are similar to that of humans. He argues that "the real differences that exist between the brain of man and that of

³¹¹ Referring here to nature's purpose of creating moral humans who extend their morality to all living things.

³¹² *Op.cit.* DARWIN, *Notebook B*, p. 232.

³¹³ *Op.cit.* DARWIN, *The Descent of Man*, p. 123.

apes are very minimal” and that we should bear “no illusions about this”.³¹⁴ He continues by comparing the brain size of humans to different apes to prove his point. By doing so, he shatters the special place given to humans and mental faculties. But more importantly, he bestows apes with a sense of being. Moreover, on the question of mental powers, he writes that “there is no fundamental difference between man and the higher mammals in their mental faculties”.³¹⁵ The whole chapter is devoted to prove that there is no essential rupture between humans and animals. Reasoning is shared. Now if moral capacities and reasoning capacities are shared, this means animals not only feel the injustice but can, at some level, recognize it.

Varieties of similarities, which Darwin exposes in the *Expression of the Emotions in Man and Animals* (1872). Darwin believes that: “He who admits on general grounds that the structure and habits of all animals have gradually evolved will look at the whole subject of Expression in a new and interesting light”.³¹⁶ He notes how animals feel emotions such as grief, anxiety, despair, love, joy, guilt, hatred, disgust, patience, fear, shame, modesty, temper, jealousy, pride, anger, helplessness and many more emotions. This is further proof that hurting animals not only has moral consequences on the one inflicting the pain but that the animals feel it and are emotionally conscious of it. He especially mentions this point while invoking dogs. He also shows how physical and behavioural expressions are similar between humans and animals as arising from moral feelings.³¹⁷ He explains how animals can communicate and therefore have their own language, which furthers the capacity to install moral norms, particularly apes.

Man not only uses inarticulate cries, gestures, and expressions, but has invented articulate language; if, indeed, the word invented can be applied to a process, completed by innumerable steps, half consciously made. Any one who has watched monkeys will not doubt that they perfectly understand each other's gestures and expression, and to a large extent, as Rengger asserts, those of man.³¹⁸

In *The Descent*, he writes that dogs exhibit many complex emotions, even a sense of humour, and how “every one has seen how jealous a god is of his master's affection, if lavished on any other creature; and I have observed the same fact with monkeys. This shews that animals not only love, but has desire to be loved. Animals manifestly feel emulation”.³¹⁹ To Darwin, not only can animal feel the same, but they can reason the same, to some extent:

³¹⁴ *Ibid.* p. 6.

³¹⁵ *Ibid.* p. 66.

³¹⁶ DARWIN, Charles, R., *The Expression of the Emotions in Man and Animals*. London: John Murray, 1872, p. 12.

³¹⁷ *Ibid.* p. 338.

³¹⁸ *Ibid.* p. 60.

³¹⁹ *Op.cit.* DARWIN, *The Descent of Man*. p 71.

Only a few persons now dispute that animals possess some power of reasoning. Animals may constantly be seen to pause, deliberate, and resolve. It is a significant fact, that the more the habits of any particular animal are studied by a naturalist, the more he attributes to reason and the less to unlearned instincts.³²⁰

In many ways, Darwin blends his scientific writing to sentimentality and even sensationalism. This point can be observed when he speaks of dogs. His fondness for dogs may be one of the major reasons he got involved in the animal welfare movements. He deplores how some dogs are subjected to vivisection:

The love of a dog, for his master is notorious [...] the only thing [...] “that luvs you more than he luvs himself”. In the agony of death a dog has been known to caress his master, and every one has heard of the dog suffering under vivisection, who licked the hand of the operator; this man, unless the operation was fully justified by the increase of knowledge, or unless he had a heart of stone, must have felt remorse to the last hour of his life.³²¹

Even though Darwin seems to recognize that dogs’ love for humans may even surpass human capacity for love, he nonetheless justifies the practice of vivisection on them. The choice was either animal suffering or scientific regression. Unless it is for science, Darwin prohibits all animal mistreatments. But the animal-human boundaries are left blurry by Darwin as he himself attests that

[i]n a series of forms graduating insensibly from some ape-like creature to man as he now exists, it would be impossible to fix on any definite point when the term “man” ought to be used. But this is a matter of very little importance. So again, it is almost a matter of indifference whether the so-called races of man are thus designated, or are ranked as species or sub-species; but the latter term appears the more appropriate.³²²

He argues that it is of little importance for biology. Yet, it is significant from a moral and practical position. If human moral sense was deciphered by Darwin through analogies to animals, moral laws and actions should be directed towards them as well. Moreover, Darwin is a known advocate against slavery. Therefore, if the lines between humans and “sub-species” are blurred, the line between those “sub-species” and apes are so too. And if they are not treated cruelly, the same applies for animals. Darwin not only scientifically urges his readers to accept that a human being in all his glorified abilities “still bears in his bodily frame the indelible stamp of his lowly origin” but he considers denying this revelation immoral and regressive. Indeed he writes that “it is only our natural prejudice, and that arrogance which made our forefathers declare that they were descended from demi-gods”.³²³ Darwin was passionate for science and all its experimental branches, but also about protecting all living things from cruelty. I will venture to argue here that Darwin considered intellectual capacity as an exalted product of

³²⁰ *Ibid.* p. 75.

³²¹ *Ibid.* p. 70.

³²² *Ibid.* p. 180.

³²³ *Ibid.* p. 25.

nature. And if science is reflective of human's naturally endowed intelligence, inflicting cruelty for science is naturally induced and necessary. The necessary evils of nature were Darwin's main reason for denying divine providence in nature. A point which Wallace would agree with as he believes that earthly suffering is "the only means of developing in us those highest moral qualities".³²⁴ To Darwin, the only way to develop science and to evolve into higher intellectual beings requires some animal sufferings. Immorality becomes a necessary component to achieve natural greatness and scientific progress. After all, "lower humans" may have acted immorally as it was useful at some point for their survival.³²⁵ Still, Darwin found a solution for cruelty-free animal testing.

Darwin's fondness for animals was no secret. But it is best shown in his day-to-day care for animals, just as he did for his scientific researches. After all, animals and perhaps his dogs appear more as his scientific muses than mere companions. Francis Darwin recounts that "the two subjects which moved my father perhaps more strongly than any others were cruelty to animals and slavery. His detestation of both was intense, and his indignation was overpowering in case of any levity or want of feeling on these matters".³²⁶ Even though Darwin rarely got involved in public confrontations, on the matter of animal cruelty, he would get furious to the point that he could not even trust himself to correctly speak. The anti-slavery sentiments that ran in Darwin's family illustrated his hatred for all sufferings. As a private citizen, he often got in fits of rage in the sight of mistreatment of horses. He would also summon the RSPCA to take actions given that he had joined the society. Furthermore, Francis Darwin mentions how

[t]he remembrance of screams, or other sounds heard in Brazil, when he was powerless, haunted him for years, especially at night. In smaller matters, where he could interfere, he did so vigorously. He returned one day from his walk pale and faint from having seen a horse ill-used, and from the agitation of violently remonstrating with the man. On another occasion he saw a horse-breaker teaching his son to ride, the little boy was frightened and the man was rough; my father stopped, and jumping out of the carriage reproved the man in no measured terms. One other little incident may be mentioned, showing that his humanity to animals was well known in his own neighbourhood. A visitor, driving from Orpington to Down, told the cabman to go faster. "Why", said the man, "if I had whipped the horse *this* much, driving Mr Darwin, he would have got out of the carriage and abused me well."³²⁷

As the local magistrate of his village, he sometimes imposed fines to those he felt abused animals. In 1853, Darwin threatened one Mr. Ainslie for cruelty against his carthorses to "have

³²⁴ WALLACE, Alfred R., "Are the phenomena of Spiritualism in harmony with science?". *The Medium and Daybreak*. ed. J. Burns. London: Vol. 16, n°820, 18th December 1885, pp. 809-810.

³²⁵ *Supra*. p. 57.

³²⁶ Unpublished reminiscence in the Cambridge University Library's collection of Darwiniana. Quoted from CLARK, Ronald, W., *The Survival of Charles Darwin*. New York: Random House, 1984, p. 76.

³²⁷ DARWIN, Francis, ed., *Life and Letters of Charles Darwin*. London: John Murray, Vol. 3, 1887, p. 200.

him up before a magistrate & his ploughman also”.³²⁸ Moreover, he cautioned those who visited him to refrain from speaking of animal cruelty, in fear of creating uncomfortable situations.³²⁹

On the affairs of animal cruelty, it appears that his whole family was involved. Indeed, in 1863, Darwin wrote a letter with his wife Emma to the *Bromley Record*, against the use of steel traps for vermin. Traps were used by gamekeepers to keep vermin under control, but very often, dogs, deer, rabbits and foxes would get trapped and harmed because of it. The letter was republished by other journals and also distributed as a pamphlet titled “An Appeal” by Emma Darwin in the hope of raising funds:

Few men could endure to watch for five minutes, an animal struggling in a trap with a crushed and torn limb; yet on all the well-preserved estates throughout the kingdom, animals thus linger every night; and where game keepers are not humane, or have grown callous to the suffering constantly passing under their eyes, they have been known by an eyewitness to leave the traps unvisited for 24 or even 36 hours.

It caught the attention of the RSPCA who proposed a prize to the one who could create an alternative trap.³³⁰ A note from the same time was recently brought to the public, having remained with Darwin’s descendants. In this note, Darwin explains why it would be better to use humane deadfall traps that kills the animal instantly rather than leaving them agonizing.³³¹ In 1864, hundreds of designs were presented at the Royal Horticultural Gardens to this end.

However, it was during the 1870s that Darwin’s moral views on animals were put to the test. Indeed, it is by this time that the anti-vivisection movement started to seriously pressure the men of science. Darwin struggled to reconcile his scientific views to his humanitarian views and it inevitably led to controversy. When asked about his opinion, he replied: “I quite agree that it is justifiable for real investigation on physiology, but not for mere damnable and detestable curiosity. It is a subject which makes me sick with horror, so I will not say another word about it, else I shall not sleep to-night”.³³² However, Darwin ended up declaring that it was “the duty of everyone whose opinion is worth anything [to] express his opinion publicly on vivisection”.³³³ In January 1875, he was asked by his daughter, Henrietta, to sign a petition against vivisection but he refused:

³²⁸ BROWNE, Janet, *Charles Darwin: Power at Place*. Great Britain: Anthony Rowe, Vol.2, 2003, p. 420.

³²⁹ *Ibid.* p. 421.

³³⁰ *The Correspondence of Charles Darwin: Volume 11, 1893*. Cambridge: University Press, 1999, p. 780.

³³¹ DARWIN, Charles, R., “Notes on Humane Traps”. 1863.

³³² DARWIN, Charles, R., “Letter n°7612”. *Darwin’s Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-7612.xml> (Accessed 25/05/2020) Letter from Darwin to Edwin R. Lankester on the 22nd of March 1871.

³³³ DARWIN, Charles, R., “Letter n°13312”. *Darwin’s Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-13312.xml> (Accessed 25/05/2020) Letter from Darwin to George J. Romanes on the 2nd of September 1881.

I have long thought physiology one of the greatest of science, sure sooner, or more probably later, greatly to benefit mankind [...] the benefits will accrue only indirectly in the search for abstract truth. It is certain that physiology can progress only by experiments on living animals [...] only men living in a few great towns would carry on investigation, and this I should consider a great evil. If private men were permitted to work in their own houses, and required a license, I do not see who is to determine whether any particular man should receive one [...] Therefore I conclude, if (as is likely) some experiments have been tried too often, or anaesthetics have not been used when they should have been, the cure must be in the improvement of humanitarian feelings. Under this point of view I have rejoiced at the present agitation [...] as long as their sports are not considered, which entail a hundred or thousand-fold more suffering than the experiments of physiologists-if such laws are passed, the result will assuredly be that physiology, which has been until within the last few years at a standstill in England, will languish or quite cease.³³⁴

To Darwin, the use of anaesthetic is imperative, and he is happy that antivivisectionists are reacting. But he refuses to sign as, to him, the licensing system is wrong as it would not expand science but contract it. To end private experiments is a direct attack upon himself, having experimented in private for decades on plants and animals. Moreover, he believes that sports, as hunting, may be favoured against science. To him, all animal sufferings should be banned, and the use of anaesthetic will remedy the ill situation. When Cobbe urged Lord Hartismere to sponsor a bill for regulating physiology laboratories, Darwin rallied his friends and colleagues, especially those with political connections, to counter this bill.³³⁵ As a result, a Royal Commission was set to resolve the issue.

In 1875, Darwin was asked by Huxley, then member of the Royal Commission, to testify as he had previously been associated in a series of resolutions taken on vivisection. For instance, the use of anaesthetic during experiments was imperative and painful experiments had to be performed by a skilled person, for sustainable reasons, with the necessary instruments, with a scientific preparation and in the suitable place.³³⁶ On the 3rd November 1875, Darwin testified in the hopes that a bill to protect both animals and the practice of physiology would come to pass. He was asked whether he had ever performed vivisection. Darwin never made such acts, in fact during his years studying medicine, he would get sick at the sight of blood. He answered that he was “fully convinced that physiology can progress only by the aid of experiments on living animals” and that it would be a “very great evil” to prohibit it as “physiology cannot fail to confer the highest benefits on mankind”. The objections against anaesthetised animals going

³³⁴ DARWIN, Charles, R., “Letter n°9799”. *Darwin’s Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-9799.xml> (Accessed 25/05/2020) Letter from Darwin to Henrietta Emma Darwin on the 4th of January 1875.

³³⁵ *Op.cit.* DARWIN, F., *Life and Letters of Charles Darwin*. Vol. 3, p. 201.

³³⁶ Referring here to the meeting of the British Association for the Advancement of Science in Edinburgh in 1871, *Report of the Royal Commission on the Practice of Subjecting Live Animals to Experiments for Scientific Purposes*. Viscount Cardwell and Nathaniel Baker. London: George Edward Eyre and William Spottiswoode, 1876, p. xii.

under vivisection was “unintelligible to him”. He continued by saying that: “I can understand a Hindu, who would object to an animal being slaughtered for food, disapproving of such experiments, but it is absolutely unintelligible to me on what ground the objection is made in this country”. To Darwin, no experiment could be entirely painless but experimenting without anaesthetics “deserved detestation and abhorrence”.³³⁷ According to his son, Darwin said these last words with much vigour either to intend emphasis or because he could not contain his disdain.³³⁸ Yet, the measures taken in the *Cruelty to Animal Act* of 1876 also known as the *Playfair Bill* were much harsher than Darwin had wished them to be.

A new controversy erupted in 1881, when Darwin received a letter from a Swedish professor who asked him about his scientific opinion on vivisection. The letter was published in *The Times* as “Mr Darwin on Vivisection” in April 1881. Darwin advanced utilitarian arguments in favour of physiologists he called the “benefactors of mankind”:

Physiology cannot possibly progress except by means of experiments on living animals, and I feel the deepest conviction that he who retards the progress of physiology commits a crime against mankind. Any one who remembers, as I can, the state of this science half a century ago, must admit that it has made immense progress, and it is now progressing at an ever-increasing rate [...] No one [...] unless he is grossly ignorant of what science has done for mankind, can entertain any doubt of the incalculable benefits which will hereafter be derived from physiology, not only by man, but by the lower animals. Look for instance at Pasteur’s results in modifying the germs of the most malignant diseases, from which, as it so happens, animals will in the first place receive more relief than man [...] noble advance of physiology.³³⁹

Darwin emphasized how the advance in physiology benefits humans and animals. And as long as physiologists use anaesthetics and assure the safety of the experiment, there is little harm for a greater purpose. Darwin’s words are filled with emotions and sensationalism once again, even though it stems from a rational argument. Darwin’s objective was “to protect animals and at the same time not to injure Physiology”.³⁴⁰ A few months after, he appeared at the International Medical Conference in London to support a more humane way of experimentation.³⁴¹ Darwin’s active role in politics was brief, but he continued debating on vivisection privately. He especially corresponded with Cobbe who had rebutted him, and kept defending his opinion on vivisection till few weeks before his death. Simply put, Darwin, the notorious reclusive

³³⁷ *Op.cit. Report of the Royal Commission on the practice of subjecting live animals to experiments for scientific purposes; with the minutes of evidence and appendix.* p. 234.

³³⁸ DARWIN, Francis, ed., *Life and Letters of Charles Darwin*. London: John Murray, Vol. 1, 1887, p. 141.

³³⁹ DARWIN, Charles, R., “Mr. Darwin on Vivisection”. *The Times*. 18th April 1881, p. 10.

³⁴⁰ DARWIN, Charles, R., “Letter n° 9927”. *Darwin’s Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-9927.xml> (Accessed 25/05/2020) Letter from Darwin to J. D. hooker, then-President of the Royal Society, on the 14th of April 1875.

³⁴¹ GRAHAM, Peter, W., “Three Aspects of Darwin’s Ethical Practice”. *The Wordsworth Circle*. Vol. 14, N°1, 2010, pp. 18-22, p. 22.

naturalist, who always relied on his friends to debate in his name, led a campaign to protect animal rights and to regulate vivisection.

Despite his poor health, he travelled several times to London to have his voice heard. Then what about his hunting activities? Since his young age, Darwin has always been fascinated by animals, though one may read it in contradictory ways. He enjoyed hunting and practiced this sport for the most part of his younger life. He longed for the hunting seasons to begin and even hunted during his voyage. He recounted that “Our day’s sport, besides the monkey, was confined to sundry small green parrots and a few toucans”.³⁴² However, his views on hunting developed over time and he came to see it as reminiscent of barbaric practices:

How I did enjoy shooting, but I think that I must have been half-consciously ashamed for my zeal, for I tried to persuade myself that shooting was almost an intellectual enjoyment [...] I discovered though unconsciously and insensibly, that the pleasure of observing and reasoning was a much higher one than that of skill and sport.³⁴³

Darwin’s idea on the relationship between humans and animals evolved most probably due to his scientific discoveries. As he pointed out to his daughter, killing for sport is much worse than vivisection.³⁴⁴ However, Darwin was also an avid collector of animals, insects and plant specimens, long before he was even a naturalist. Indeed, as a child, Darwin already collected insects such as beetles. He considered making collections as “the best sport in the world”.³⁴⁵ He recounted how “during out stay at Maldonado [he] collected several quadrupeds, eighty kinds of birds, and many reptiles, including nine species of snakes”.³⁴⁶ Animal and plant collecting were part of his scientific studies, and some were, of course, killed. But to Darwin, it did not cause them any harm as they did not suffer, and it had to be done for good reasons. After all, it led him to one of the greatest discoveries. Additionally, Darwin was also involved in artificial selection, especially pigeon breeding, which he used as a powerful analogy to foster his theory. Notably, Wallace saw in artificial breeding an illusionary aspect as, to him, once back in nature, artificially bred animals would return to their natural state. Darwin’s years of combined animal experiments, testing, breeding and observations built for him more than a sustainable *ethos*. One may argue that the cumulative ethical effects of all his empirical discoveries on animals induced an ethical sensibility regarding all living things in him. Where many distinguished in Darwinism the advocacy for dehumanization, others may see it an appreciation of lower forms of life. Darwin’s idea of the relation between humanity and

³⁴² *Op.cit.* DARWIN, *Journal of Researches*. p. 28.

³⁴³ *Op.cit.* DARWIN, *The Autobiography of Charles Darwin*. pp. 55, 79.

³⁴⁴ *Supra.* p. 107.

³⁴⁵ *Op.cit.* DARWIN, F., *Life and Letters of Charles Darwin*. Vol. 3, p. 114.

³⁴⁶ *Op.cit.* DARWIN, *Journal of Researches*. p. 48.

animality is quite consistent with his theory, in which the difference between the both lies in degree and not in kind.

Darwin's theory and thoughts indubitably induced the recognition of animals' right to not suffer, just as he did for slavery. Darwin advocated for the end of all sufferings. Now, whether his theory was used against his will to foster animal cruelty on grounds of "survival for the fittest" cannot be held against him. His humanitarian ethics does not go against his scientific discoveries, though it might have created in him ambivalent feelings, but his views as well as his theory do not produce an ethical rupture regarding animals. I argue that Darwin is a product of his era, advocating for both animal rights and scientific progress.

Darwin always held that humans were superior in terms of evolution, but that their superiority should be shaped by their moral sense. Darwin defended the end of cruelty, and by proposing the use of anaesthetics, found a solution to end animal sufferings. Experimenting without and inflicting unnecessary pain "deserved detestation and abhorrence". What he did was bringing ethics into scientific experiments. But killing was never considered as immoral, as nature itself kills. Therefore, Darwin promoted a continuity between species, and rather than dividing the natural world into separate areas, he observed different degrees of similarities and differences such as the descent from a common ancestor, species all deserving the universal right of absence of pain. Darwin's moral theory includes animal ethics. However, Darwin did not describe moral norms, nor did he write that all species were deserving the same rights, only that of absence of pain. He himself did not pronounce himself on the question of gender equality, even though a socialist reading of his theory may prove it. There is just no absolute difference nor fundamental similarities between species or between individuals belonging to one species. Such view joins that of James Rachels who sees in Darwinism moral individualism.

To Rachels, "moral individualism is a view that looks to individual similarities and differences for moral justification" and its moral rules are "species-neutral".³⁴⁷ Therefore, if animals and humans do not differ in kind but only in degree, they are to be treated in the same manners, unless they display different characteristics which justify a difference in treatment. Now, Darwin had proved that humans and animals share common characteristics, even reasoning. Therefore, if humans have characteristics which justify treating animals a certain way, they must be sure that these characteristics are not shared by animals as well. Rachels writes that from this Darwinian moral individualism, "the same rules that govern our treatment

³⁴⁷ RACHELS, James, *Created from Animals. The Moral Implication of Darwinism*. Oxford: University Press, 1990, p. 174.

of humans should also govern our treatment of non-humans”.³⁴⁸ This may be the reason why an ape may be seen as more deserving of protection than a shrimp. Therefore, to answer the question to what extent must humans extend their sympathy to all living things, the answer may be found in Darwinian moral individualism. The sympathy given varies in degree according to the pattern of similarities and differences which exists between living organisms.

The theory of evolution implies a more egalitarian aspect of ethics in which animals are given consideration. Where religion draws a radical line between the uniqueness of humans and their souls, Darwin, in his secular reasoning, still praises human superior place in nature without undermining the value of other species: “it revolts our understanding to suppose that his benevolence is not unbounded, for what advantage can there be in the sufferings of millions of the lower animals throughout almost endless time?”³⁴⁹ Darwin’s growing empathy for animals led him to consider that even though nature is brutal, nature also produced humans and animals alike, and with its ultimate goal, moral humans would come to sympathize with others. The theory of evolution may appear as almost equivalent to theological ethics with the difference that it considers and recognizes the rights of animals without denying a human superior place. If we look at it from a different angle, Darwin valued non-human life forms as they are legitimate subjects to be experimented on for science to progress. If anything, they were necessary to Darwin’s theory as his whole vindication is based on analogies between species. His main idea that there is no absolute but a gradual distinction between humans and animals, especially on consciousness, erases all borders between species. As a result, if there is no natural border, there is no rupture on the moral status of each species. Darwin’s moral theory admits a continuity to animal ethics. His defence of vivisection remains to this day common among scientists who experiment on laboratory animals in the name of scientific advancement. Darwin’s plea to end cruelty is based on sentience, thus, it does not apply to plants or insects. Yet, we will see that his consideration on environmental welfare may remedy this discontinuity.

³⁴⁸ *Ibid.* p. 208.

³⁴⁹ *Op.cit.* DARWIN, *The Autobiography of Charles Darwin*. p. 90.

3. Sympathy to All Creatures & Beyond

The challenge on the question of environmental ethics is to reconcile “the struggle for existence”, “the survival of the fittest” and “the moral sense”. While the beauty of nature may have aroused a sense of sublimity in Darwin, he nonetheless remarked that it bears traces of ceaseless killings.³⁵⁰ The question is therefore whether Darwin stood for a moral relationship of human beings to the environment. As we have already seen that Darwin granted a moral status to nature’s non-human contents, this part will evaluate Darwin moral prescriptions to nature as a whole, as humans are meant to co-exist with animals, plants and the land itself. In light of the outcome of such a proposal, we may see whether Darwin’s moral theory advocates for a better society. Today, we define ecology as the science which aims at understanding nature as it *is* while environmental ethics means to decipher how humans *ought* to inhabit nature. But as mentioned earlier, Darwin found a way to bridge this dichotomy and established a reciprocal relationship between evolutionary science and morality.³⁵¹ Therefore, environmental ethics and environmental science are intrinsically linked through Darwinism.

In *The Origin*, Darwin describes how he was astonished at the “web of complex relations” that existed in nature:

[P]lants and animals, most remote in the scale of nature, are bound together by a web of complex relations [...] I have found that the visits of bees are [...] highly beneficial to the fertilisation of our clovers; but humble-bees alone visit the red clover [...] Hence I have very little doubt, that if the whole genus of humble-bees became extinct or very rare in England, the heartsease and red clover would become very rare, or wholly disappear.³⁵²

Darwin explains how the numbers of humble-bees depended on the number of field-mice and cats in the areas. Field-mice destroy their combs and nests, but cats destroy mice. Darwin is amazed by how “the presence of a feline animal [...] might determine [...] the frequency of certain flowers”.³⁵³ Darwin understands the ecological interdependence of co-existing species and the importance of conserving a community and its system. The disappearance of one species may have catastrophic effect over the whole system. At this stage, the ethical implications of theory were still implicit, but it already has an ethical value as it infers that each species has an impact of the natural environment and therefore the system must be preserved. He metaphorizes this web of connections in the image of a tree of life:

The affinities of all the beings of the same class have sometimes been represented by a great tree. I believe this simile largely speaks the truth. The green and budding twigs may represent existing species; and those produced during each former year may represent the long succession

³⁵⁰ *Ibid.* pp. 90-92.

³⁵¹ *Supra.* p. 65.

³⁵² *Op.cit.* DARWIN, *The Origin of Species*. pp. 79-74.

³⁵³ *Ibid.* p. 74.

of extinct species [...] As buds give rise by growth to fresh buds, and these, if vigorous, branch and overtop on all sides many a feebler branch, so by generation I believe it has been with the great Tree of Life, which fills with its dead and broken branches the crust of the earth, and covers the surface with its ever branching and beautiful ramifications.³⁵⁴

As he places humans on this tree, he later reconsiders in *The Descent* humans' ethical relation with other species. Darwin, in a poetical rhetoric, concludes in this way:

It is interesting to contemplate an entangled bank, clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent on each other in so complex a manner, have all been produced by laws acting around us.³⁵⁵

In his last book, *The Formation of Vegetable Mould, through Action of Worms, with Observations on their Habits*, Darwin emphasizes the essential interrelation between animals and plants by demonstrating the fundamental role of earthworms as geological agents.³⁵⁶

Darwin acknowledges the crucial role of each species in the systems of nature – now called ecosystem – but so far, only humans may understand the importance of maintaining the system. For animals, survival still stems from individualism. Cats do not destroy mice so that the clovers may survive. It is apparently, and this is where the liberal side of Darwinism barges in, natural selection's role to make it so:

If it profits a plant to have its seeds more and more widely disseminated by the wind, I can see no greater difficulty in this being effected through natural selection, than in the cotton-planter increasing and improving by selection down in the pods on his cotton-trees. Natural selection may modify and adapt the larva of an insect to a score of contingencies [...] In social animals, it will adapt the structure of each individual for the benefit of the community; if each in consequence profits by the selected change.³⁵⁷

Darwin fosters a social and economic conception of nature and productivity. Natural selection intervenes to increase the profits of species in, what Linnaeus called, the economy of nature. By means of this analogy, Darwin biologically justifies capitalism and artificial selection. Though the influence of Malthus and Hobbes' liberalism may be felt here, Darwin lessens it with his social theory of moral sentiments in *The Descent*. And in this viewpoint, this may be why natural selection endowed humans with a sense of morality, to protect nature as a whole.

Moreover, Darwin predicts that some species would co-adapt. Indeed, he observes how an orchid and its moth pollinator were benefiting from each other:

As certain moths of Madagascar became larger through natural selection in relation to their general conditions of life [...] as the proboscis alone was lengthened to obtain honey from the *Angræcum* [...] These plants would yield most seed, and the seedlings would generally inherit

³⁵⁴ *Ibid.* pp. 129-130.

³⁵⁵ *Ibid.* p. 489.

³⁵⁶ DARWIN, Charles, R., *The Formation of Vegetable Mould, through Action of Worms, with Observations on their Habits*. London: John Murray, 1882.

³⁵⁷ *Op.cit.* DARWIN, *The Origin of Species*. p. 86.

longer nectaries; and so it would be in successive generations of the plant and moth. Thus it would appear that there has been a race in gaining length between the nectary of the *Angraecum* and the proboscis of certain moths; but the *Angraecum* has triumphed, for it flourishes and abounds in the forests of Madagascar, and still troubles each moth to insert its proboscis as far as possible in order to drain the last drop of nectar.³⁵⁸

Darwin foretells what we now call “biotic interaction”. While we might see a form of Hobbesian individualism, social species, that are to Darwin much more evolved, acquire a Humean sense of morality and dwell in a community-oriented system. Darwin demonstrates the importance of each component in the systems of nature and also acknowledges the devastating effects that humans had on some species.

Darwin, in *The Origin*, emphasizes how humans may have threatening effects on native plants and animals. He writes that “the recent extension over the United States of one species of swallow has caused the decrease of another species”.³⁵⁹ In *The Descent*, he mentions the exportation of diseases and the “deadly influence of miasma” on certain groups of humans.³⁶⁰ He also recognizes the consequences of human lifestyle on the extinction of certain species, though the extinction of a species is natural. In his *Journal of Researches*, he notes the unique flora of St Helena and explains that eight species of land-shells died out due to deforestation:

On the higher parts of the island, considerable numbers of a shell, long thought a marine species, occur embedded in the soil. It proves to be a *Cochlogena*, or land-shell of a very peculiar form; with it I found six other kinds; and in another spot an eighth species. It is remarkable that none of them are now found living. Their extinction has probably been caused by the entire destruction of the woods, and the consequent loss of food and shelter, which occurred during the early part of the last century. The fact, that the goats and hogs destroyed all the young trees as they sprang up, and that in the course of time the old ones, which were safe from attacks, perished from age, seems clearly made out. Goats were introduced in the year 1502; eighty-six years afterwards, in the time of Cavendish, it is known that they were exceedingly numerous. More than a century afterwards, in 1731, when the evil was complete and irretrievable, an order was issued that all stray animals should be destroyed. It is very interesting thus to find, that the arrival of animals at St Helena in 1501, did not change the whole aspect of the island, until a period of two hundred and twenty years had elapsed: for the goats were introduced in 1502, and in 1724 it is said “the old trees had mostly fallen”. There can be little doubt that this great change in vegetation affected not only the land-shells, causing eight species to become extinct, but likewise a multitude of insects.³⁶¹

Likewise, when Darwin visited Mauritius Island in 1836, he claimed that there was a certain “enigma” regarding the native fauna. He visited the island when deforestation was at its highest level and when new foreign species were introduced. Darwin was lied to by Captain Lloyd, the one who accompanied him during his journey, to avoid discovery.³⁶² It is proof that naturalists

³⁵⁸ *Op.cit.* Darwin, *On the Various Contrivances by which Orchids are Fertilised by Insects*. p. 166. In honour of Darwin’s correct prediction, the moth was re-discovered in 1903 and named “the predicted Morgan’s sphinx”.

³⁵⁹ *Op.cit.* DARWIN, *The Origin of Species*. p. 76.

³⁶⁰ *Op.cit.* DARWIN, *The Descent of Man*. p. 193.

³⁶¹ *Op.cit.* DARWIN, *Journal of Researches*. pp. 488-489.

³⁶² “Charles Darwin’s Beagle Diary v/s Carl Jones”. *Prezi*.

already saw the effects of humans on the environment. British scientist John Lubbock (1834-1913), Darwin's then young neighbour, told Darwin that the Humble Bees, "once landed in Australia", would "probably destroy some native insect" and that he wished "Mr. Wilson would leave the Australian fauna alone".³⁶³ From Darwin's accounts in his books, we see that he had mixed feelings regarding the introduction of new species as they may infer the extinction of native ones. In 1841, Darwin had pleaded in the *Gardeners' Chronicle* against the destruction of humble bees suggested by one disgruntled gardener. Darwin wrote that "one would lament to see these industrious, happy-looking creatures punished with the severity proposed by your correspondent".³⁶⁴ Darwin, since his youth, showed care for animals and their natural habitat, and he formulated an ethical theory to remedy the ills of human societies.

Taken as a whole, Darwin portrayed a harsh nature in which species struggled to survive. Yet, natural selection would sometimes enhance their survival and has the goal to produce moral creatures who would not only care for their survival but who, like humans, will learn to extend their sympathy to all living things. This is how the problem induced by the idea of individualism in survival and the socialism of the sense of sympathy can be reconciled. Destroying ecosystems will unnecessarily destroy animals and plants, as inhibiting the extinction of some species may in turn cause the extinction of other species. And as the purpose of nature is to create moral beings that respect kinship between all species, Darwin's theory strives within ecology and Darwinian ethics admits a continuity to environmental ethics. Or, even further, environmental ethics may find its rooted in Darwinian ethics. As suggested, it is now possible to say that, according to Darwin, *nature produced moral humans to protect itself*.

Darwin provided key concepts on the relationship between all species in nature which contributed to environment ethics as we know it now. Darwin's theory remains to this day a touchstone for modern biologists. When Darwin undermined anthropocentrism by admitting a common ancestor to all species, he weakened human arrogance towards nature and its contents. Due to the eleven-year gap between *The Origin* and *The Descent*, his theory was long considered as an advocacy for natural exploitation. He corrected this miscomprehension by elaborating his theory of moral sense with sympathy which described the idea of competition

<https://prezi.com/af3bpqnwzyqj/charles-darwin-came-to-mauritius-in-1836-on-the-29th-of-april/> (Accessed 28/05/2020)

³⁶³ LUBBOCK, John, "Letter n° 5716". *Darwin's Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-5716.xml> (Accessed 28/05/2020) Letter from John Lubbock to Darwin on the 9th of December 1867.

³⁶⁴ DARWIN, Charles, R., "Letter n° 607". *Darwin's Correspondence Project*.

<https://www.darwinproject.ac.uk/letter/DCP-LETT-607.xml> (Accessed 28/05/2020) Letter from Darwin to the *Gardeners' Chronicle* on the 16th of August 1841.

and individualism as some of natural selection's principles. But as the aim of natural selection is the emergence of moral creatures, there is no doubt that humans must protect the systems of nature.

Ecologists, similar to all scientists, are not bound by science's neutral principles. While the study and methodology of science must stay objective, the discoveries made out of science have ethical meanings to human culture, just as scientists are bound to be influenced by their own culture. Therefore, by promoting a sense of community extended beyond human societies to the entire biotic community, ecologists shape and transform human cultural values, social attitudes and relations toward nature. In a Darwinian perspective, natural selection leads humans to protect nature while it enhanced the species to dominate it as well. From evolutionary ethics arises evolutionary politics. Humans have dominion over nature, which serves them but which they should protect. While animal experiments still create an ethical dilemma, evolutionary environmental ethics is more constant, unified, and continuous. It illustrates the perfect blend of objective scientific knowledge and subjective morality. In this case, Darwin's theory of morality, once again, puts an end to the dichotomy between theory and praxis. The question of environmental ethics is the best embodiment of a practical application of Darwin's moral theory which had been less corrupted by alternative interpretations, albeit some do exist.

Darwin promoted awareness on the catastrophic risks of disrupting natural balance and assigned to modern thinking new grounds for deliberating on the relationship between humans and nature. The one who made the most of Darwin's environmental ethics was Haeckel. In his *General Morphology of Organism* (1866), he popularized and emphasized Darwin's ecological sciences and environmental ethics. He even defined his word "ecology" as "the study of all those complex interrelations referred to by Darwin as the conditions for struggle for existence".³⁶⁵

While Darwin's theory of evolution did not gain the favour of all nineteenth-century scientists, by the beginning of the twentieth century, his biological revelation was at the centre of modern science. The first step at enhancing his theory was the emergence of Mendelian genetics. Afterwards, mathematical models of natural selection emerged which in turn induced the development of Modern Synthesis during the 1930s. Popularized by Julian Huxley (1887-1975), the grandson of Thomas Huxley, Modern Synthesis endeavoured to assemble all subjects and domains relating to Darwinism under one single discipline. As Darwin himself had

³⁶⁵ Quoted from COOPER, J., Gregory, *The Science of the Struggle for Existence. On the Foundation of Ecology*. Cambridge: University Press, 2007, p. 4.

suggested that there were a variety of factors which inferred evolution, Huxley thought that to truly understand evolution, it must be studied from a pluralist standpoint. Therefore, he turned evolution into a discipline which included genetics, mathematical analysis of biology, ecology, systematics, physiology, embryology, palaeontology. While the nineteenth century is remembered for the specialization of disciplines, the disunity that ensued, especially in biology, created a need for unifying science. He wanted to remedy the ills in his epoch – the First World War, the sense of general cultural degeneration, the Great Depression, the rise of communism, fascism, Nazism – by constructing an ethical system which would give a meaningful existence for humans, the product of a progressive evolution. He fostered an evolutionary humanism driven by a progressive, liberal, optimistic, and coherent system.³⁶⁶ By unifying science, he aimed to unify knowledge in order to study modern humans. His ideas stemmed from a political and ethical perspective, much like Thomas Huxley, and he tried to build an ethical system grounded in evolutionary progress which was then more sustainable as the premises of Darwinism had been tested, experimented, mathematicised and thus, legitimized.³⁶⁷ As Darwinism offered the possibility of progress rooted in a liberal ideology, Huxley saw in evolution a way to improve modern human, swayed in the mid-century's crisis. However, just as his grandfather did, Huxley's evolutionary ethics and politics does not entirely reflect Darwin's ideas, only parts were used to his benefit. One of the twentieth-century leading evolutionary theorist, Ernst Mayr (1904-2005), who adhered to Modern Synthesis, said that "the theory of evolution is quite rightly called the greatest unifying theory in biology".³⁶⁸ A point to which this study may relate, as the aim is to show how Darwin's moral theory proved a continuity within many domains and thoughts, and unified and reconciled all human aspects.

However, in modern times, the emphasis on Darwin has usually been scientific or when it involved his ethics, it usually emanated from wrongful readings of Darwinism. Here, Huxley only tried to use the traces of Hobbesian liberalism and Malthusian economic thinking in Darwinism to defend modern individualism which is one of the major problems linked to our contemporary environmental crisis, especially mass production and natural resources. Therefore, such opportunistic and misleading application of Darwinian ethics not only fosters a depraving view of Darwin himself, but negates his words, and harms the natural world he so cherished. This is why it is so important to study Darwin from an interdisciplinary stance.

³⁶⁶ SMOCOVIDISTIS, V., B., "Unifying biology: The evolutionary synthesis and evolutionary biology". *Journal of the History of Biology*. Vol. 25, 1992, pp. 1-65, p. 33.

³⁶⁷ *Ibid.* pp. 39-40.

³⁶⁸ *Ibid.* p. 1.

Darwin depicted a world where sublimity and cruelty co-exists, but where nature purposefully endows humans with morality for them to maintain nature's balance. By promoting such a position, Darwin divinized humans as well. As humans will evolve into higher moral beings endowed with free will, they will be capable of thinking, deliberating, choosing and progressing by and for themselves. The true meaning of Darwin's secular ethics is that humans can master themselves and create their own happiness, within nature's frame. Moreover, Darwin settled with the idea that nature is brutal, with a perpetual circle of death and birth. He envisioned a world in which nature gives and takes equally. The moral human will be capable of striving in and dominating nature as long as they are endowed with morality. The only way to happily live within nature is to live according to its laws, that is sympathy to all beings. Because humans are capable of deliberating, and are endowed with freewill within nature, humans are capable of emancipating from nature within nature, and it would seem that to Darwin, once humans progress into higher moral beings, they may form a utopian society in accordance with what nature gave them and within nature's brutal frames.

However, and again, because of so many incorrect interpretations, Darwin's vision of nature has, most of the time, been misrepresented. British novelist and philosopher Aldous Huxley (1894-1963), the brother of Julian Huxley, imagined a dystopian world in which he questions whether controlling adaptation of different traits may make humans better suited for a particular environment. By the time Huxley wrote his book, *Brave New World* (1932), the ideas of eugenics, Malthusian birth control, Social Darwinism and genetic manipulation were heavily considered. His book illustrates an extreme form of population control and mass sterilization. Humans would reproduce through a process he named "Bokanovsky" which is basically artificial genetic selection and fertilization resulting in the production of clones. Huxley, apparently against his own brother, warns about the dangers of using science to control human behaviour. Moreover, he paints a world where diversity between people and the freedom of choice no longer exist. He also criticizes the importance of the community over individualism, in accordance with his brother on this point. The moral dilemma is whether the sacrifice of individualism is worth the stability of the community. He highlights the paradoxical nature of ideals and their foundations while making a dystopian world out of the scientific and technological optimism that invaded his time.³⁶⁹ While his criticism is sustainable, realistic and rightful, it is directed to a position which is rooted in Social Darwinism, therefore he does not really criticize Darwin's ideas. Now if we consider that Darwin agreed that there are humans

³⁶⁹ HUXLEY, Aldous, *Brave New World*. London: Chatto and Windus, 1932.

fitter than others and praised genetic fitness, to him, the fitter is the being with higher morality. And moral beings are altruistic. Darwin also recognized the superiority of civilized races over savages but saw in them the potentiality of progress. And even if we believe that Darwin advocated for the fittest, it cannot lead to the tyranny of the fittest, as the fitter a human is, the more moral he will be. The real dilemma here is whether moral norm implies social control, and how Darwin's ethics explains it. But this is ground for another study.

Now on the question of individualism against communitarianism, an answer may lie in Darwin's advocacy against slavery. Darwin valued each life, regardless of their evolved state. On many occasions, Darwin promoted individualism but also its contrary. Therefore, Darwin's position reaches an equilibrium between the two. However, displaying a dystopian view is not necessarily pessimistic. It sometimes warns us against chasing ideals and asks us to consider the present world. And this is exactly what Darwin did. He promoted a possible utopianism in a harsh nature where utopia may or may not exist. And instead of filling it with a dystopian vision, he reminded humans how nature is worth preserving as it shapes their futures.

On the celebration of the 150th anniversary of the publication of *The Origin*, an illustrated book was published, *Endless Forms* (2009), aiming at exploring the influence of Darwin's science on the nineteenth-century visual arts. It shows how the idea of struggle for existence as well as that of the common ancestry had been inspirational. But more importantly, how artists interpreted and misinterpreted Darwin's ideas while depicting different versions of humanity at different times. It is another way of seeing how everyone made either a utopia or a dystopia out of Darwinism.

To conclude, as Darwin identified sympathy for all sentient creatures as the pinnacle of morality, his moral theory extends beyond the boundaries of human species and admits a continuity to animal ethics. He found a sustainable solution to fight animal suffering by promoting anti-cruelty in science. The use of anaesthetics will end animal sufferings while allowing science to progress to the benefit of all beings. By depicting nature as an entangled web, Darwin bid people to maintain natural balance. It is noteworthy that Darwin realized quite readily the effect of environmental change on all aspects of nature. With this caution in mind, Darwin set out an evolutionary ethics in which ruptures are only illusionary. He drew a path in his moral theory to comply to the necessities of human civilizations while contributing to the establishment of a new society based on the ethics of nature. Darwin's moral theory admits a continuity within all aspects of Ethics.

Conclusion

This study was designed to reveal the moral continuum that pervades Darwin's theory of morality and to try to offer an authentic reading of Darwin's words, far from blemished accounts. Although Darwin's true ethical ideas are now acknowledged, the specificity of this study lies in admitting a wholesome continuity to Darwinism and proving how Darwin unified all human concepts and precepts under the sole law of nature.

To this end, I began by carefully exploring his early ethical contemplations, personal background, and surrounding circumstances. It confirmed that in his search for the knowledge, Darwin crossed path with many ethical philosophers and reflected on their theories to nourish his own. He articulated ethical concepts within a scientific framework and by doing so, anchored his theory within Ethics. But, even further, by rooting morality in natural instincts, Darwin ended the division amongst metaphysicians on human duality. As his theory is embedded with conservative ideas, he united both progress and traditions. He valued traditions and reconstructed them to fit a progressive discourse. It illustrates a continuity of Darwinism within history of moral knowledge, within traditional ideas and within Darwin's mind.

As novelty is rarely welcomed, Darwin went under callous trials, but managed to fashion a revolutionary theory which bridges all conflicting concepts. Through his ethical naturalism, he depicted a world in which millennia-old heritage of chasm are illusionary. He blurred the lines between humanity and animality, mind and matter, brutality and culture, tradition and progress, values and facts, freewill and determinism, nature and nurture, materialism and teleology, individualism and socialism, immanence and transcendence. Beyond expectations, Darwin's moral theory endows humans with freewill and with a purpose within nature's realm. Darwin rationalized transcendental concepts and promoted a global continuity, with in mind that if the transcendent exists, it does outside nature's laws.

Instead of denying human uniqueness, nature birthed creatures capable, by their own means, of arising from the depth of animality to world domination. And yet, Darwin, in his theory, kept sympathy alive and demanded it to be spread beyond the boundaries of the human species, from the wildest beast to the last blade of grass, to end of all sufferings. By doing so, he also advocated for environmental ethics which, once more, breaches a dichotomy, that between theory and praxis. And as the purpose of nature is to create beings that sympathize with all living creatures, Darwin, in this new summon of destiny, asked that humans embraced their nature and dare to be the greatest generation created by nature. While at first, it seems as if nature armed humans with the potential to reverse its own power, it now appears as if nature

created humans to protect itself. And as Darwinism endorses both progressive and conservative ideas, it bears a utopian vision of mankind capable of ascending to higher beings and yet confined in a realistic and brutal natural frame in which their animal descent never leaves them.

Ultimately, all goes back to Darwin's so fostered idea of a difference in degree and not in kind. His words transgressed political, moral and biological rhetoric to a humanitarian one, in which all are deserving some consideration as all differ in degree. With his generosity of spirit, Darwin defended a world with moral goodness as foundation. Darwin linked moral progress to humanity, rejected oppressions and dogmatism, and established the civilizational propensity for moral ends on the extension of sociability to the recognized *others*. He undertook the role of ethical messenger between the objective science and the subjective human world. He reconciled all the ills of the intellectual and philosophical world by promoting a global continuity, from his evolutionary theory to existing ethical theories, between already existing concepts, but more importantly, from his own mind to his theory. This is why, inquiring into his personal thoughts enlightens the meanings of his theories. And as far as the attributed epistemological break is of concern, Darwin produced a rupture only by powering his ideas with the almighty science. He established a continuity within his theory between natural and transcendent concepts. There are only effects of rupture, but no real ones, as Darwin's only concern was to eradicate dogmatism while attaining to a single true knowledge.

His theory professes a remarkable convergence of views and Darwin's broad mindedness answered many of the world's greatest issues, yet he remained for the most part of his life fuelled with modesty and humility:

Though I fully feel how presumptuous it sounds to put myself even for a moment in the same bracket with Kant—the one man a great philosopher looking exclusively into his own mind, the other a degraded wretch looking from the outside through apes and savages at the moral sense of mankind.³⁷⁰

Darwin's ideas are reflective of his ambivalent era, as Victorians wavered between the old science and the new one, but they also endeavoured to transgress barriers and reconstruct their social structure in a modern and progressive world, without undermining traditional foundations. But thanks to this ambivalence, Darwin's theory was easily integrated into many Victorian aspects. Albeit scientific, Darwinism is the outcome of a long history of cultural, spiritual, philosophical, ethical, and epistemological turmoil. Therefore, to fully grasp such a vast and pervasive concept as Darwinism is, it was of the upmost necessity to look beyond his scientific premises and investigate into his century's ethical, social, and philosophical debates.

³⁷⁰ *Supra.* p. 23.

This is why a combination of many disciplines, such as philosophy, history, biology, anthropology, was demanded. Additionally, this study valued his personal letters and notebooks as what has been made of Darwinism does not always correspond to the historical facts, especially as many wrote on Darwinism whatever appealed to them, regardless of its accuracy and very often, manipulated the power of scientific thinking, contrary to Darwin's own teachings. Notably, the very progression of this study shows that my initial premises evolved, especially when I inquired on freewill and teleology.

Darwinian ethics englobes animal and environmental ethics, and reflects how theoretical perspectives can be actualized in behavioural practices. Therefore, further study could spin around this pragmatical use of Darwinism. For instance, Darwin's published letters in journals and pamphlets brought forth a hidden side of Darwin, one in which he is explicitly engaged in public affairs; there must be other areas, political and social, in which Darwin had such an influence, although it might be very rare. It may offer a broader insight on Darwin's outreaches. Moreover, as Darwin built a natural theory on optimism, one may inquire on the question of social and political control. To this end, for instance, his conversation with Thomas Huxley may be of importance as he heavily relied on him to promote positions. Darwin sometimes rallied his political acquaintances to defend or offend practices. Therefore, Darwin may have been much more involved in the public affairs of his era than has been said. Furthermore, in addition to his letters, his drafts and scientific drawings may be of interest for future study. Indeed, scientific imagery may illustrate another aspect of Darwinism, one in which "seeing" is objectively reconstructed and yet still imbued with social, ethical, and epistemological subjectivities.

As I have shown in a previous study, Darwinism may be used to vehicle democratic and progressive values. This time I conveyed it with a global continuity to allow the possibility of a "Social" Darwinism, founded upon both traditional and progressive concepts, and in which transcendent ideas are biologized and human mind is reshaped within nature. Inquiring in Darwinism is fascinating as it embodies the potential of a scientific theory, capable of answering social and political issues while retaining its fundamental identity.

Annexes

Figure 1: "Vivisection!". *Punch*. 6 September 1879, p. 106.



Figure 2: "Scinece [sic] and Stupidity". *Punch*. 29th of July 1876, p. 40.

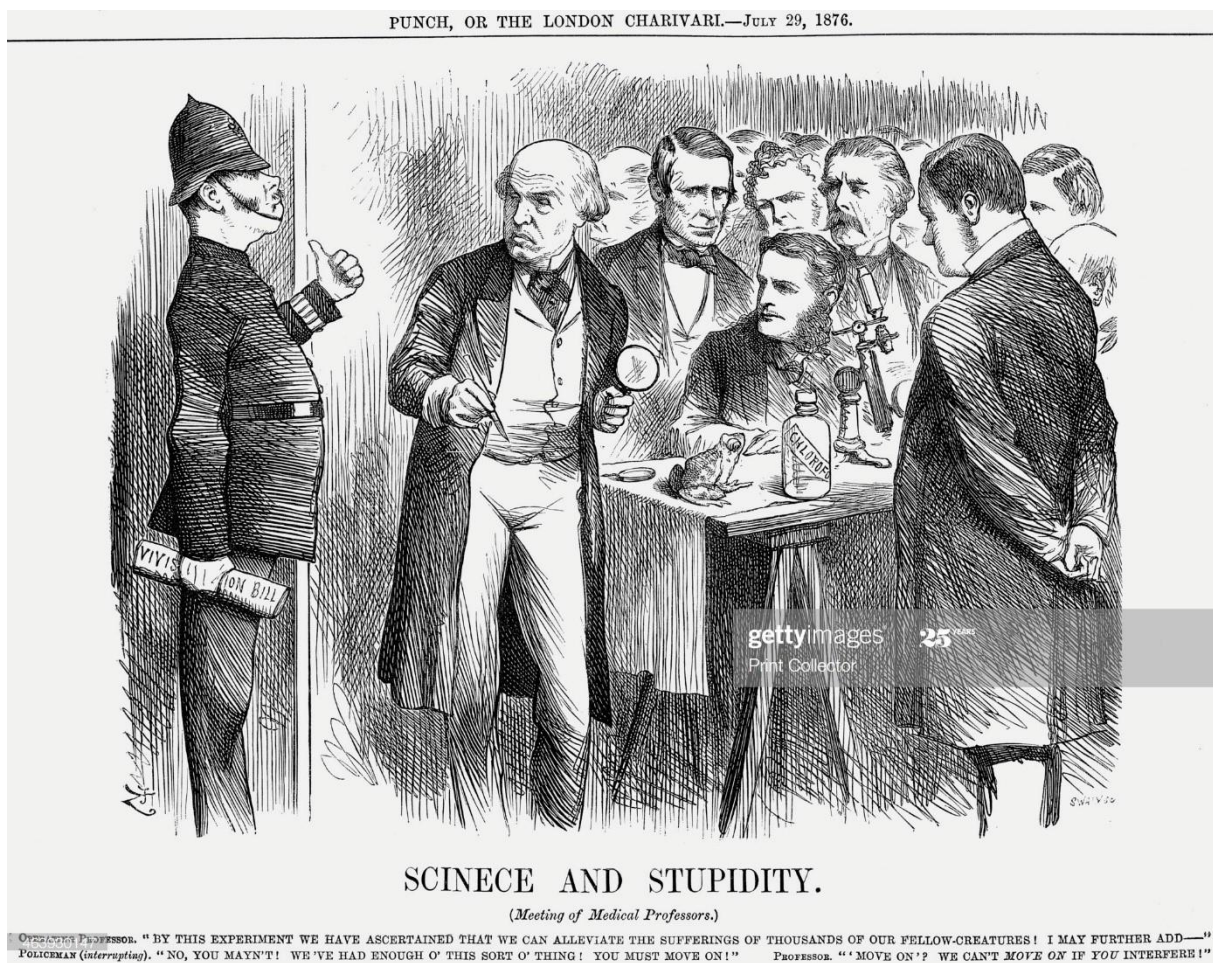
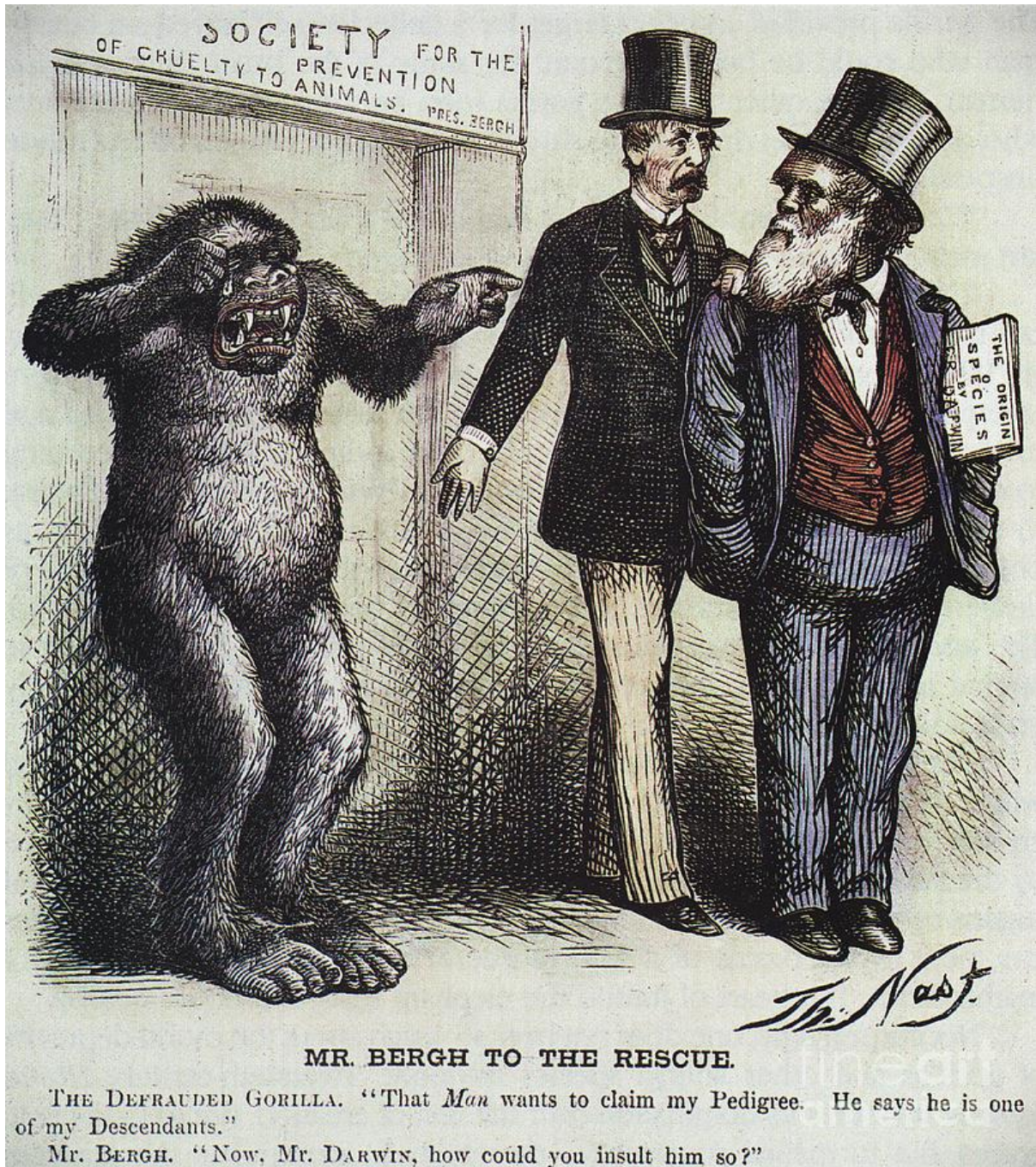


Figure 3: NAST, Thomas, "Mr Bergh to the Rescue". *Harper's Weekly*. 19th August 1871.



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