

A “Universal Struggle for Life”?

A Comparative Study of the Regional Reception of Darwinism
among Religious Thinkers in the Second Half of the 19th Century

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A “Universal Struggle for Life”? A Comparative Study of the Regional Reception of Darwinism among Religious Thinkers in the Second Half of the 19th Century.

Abstract

The present study aims at analyzing the reception of Darwinism among religious intellectuals from the Anglo-Saxon world and the Middle East in the second half of the 19th century. It adopts a comparative approach, understood in its double meaning of individualizing operator and commonality revealer, in order to formulate hypotheses regarding the contextual and the general implications of Darwin’s theory. The main finding is that behind the distinctive politicization of Darwinism that framed the debates towards secularization in one case and towards the relation to the imperial power on the other, the ideas and preoccupations voiced by Anglo-Saxon and Middle Eastern religious thinkers demonstrate striking similarities, with regard to the intensity of the debate, the individuality of the experience, the inscription of Darwinism in the question of modernity and the types of fundamental questions raised. The overarching idea governing the article is that the relation between religion and Darwinism should not be understood as a necessary opposition.



Une « Lutte universelle pour la vie » ? Étude comparative de la réception régionale du Darwinisme parmi les penseurs religieux de la seconde moitié du 19^{ème} siècle.

Résumé

Cet article analyse la réception du darwinisme chez les intellectuels religieux dans la seconde moitié du 19^{ème} siècle, dans le monde anglo-saxon et au Moyen-Orient. L’approche comparative, comprise dans sa double signification à la fois comme opératrice d’individualisation et comme révélatrice de similarité, permet de formuler des hypothèses au sujet des implications contextuelles et générales de la théorie de Darwin. La conclusion principale est qu’au-delà du différent mode de politisation du darwinisme, associé à une dynamique de sécularisation d’un côté et à la relation au pouvoir impérial de l’autre, les idées et préoccupations exprimées par les penseurs religieux moyen-orientaux et anglo-saxons démontrent des similitudes frappantes quant à l’intensité du débat, à l’individualité de l’expérience, à l’inscription du darwinisme dans la question de la modernité, et aux types de questions fondamentales soulevées. L’idée qui sous-tend l’article est que la relation entre la religion et le darwinisme ne devrait pas être comprise comme une opposition systématique.



Keywords

Anglo-Saxon world; Darwinism; Design; Middle East; Modernity; Religion; Science; Universality



Mots-clés

Darwinisme ; design ; modernité ; monde anglo-saxon ; Moyen-Orient ; religion ; science ; universalité

There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator 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.¹

With these words ends the very last chapter of *On the Origin of Species by Means of Natural Selection*, the central book of Charles Darwin's evolutionary theory. The sentence is however not exactly the same in the six editions published during Darwin's life. It is only after the publication of the 1st edition in 1859 that the words "by the Creator" were added. Why did Darwin proceed to this adjustment? Was it meant to soften the impact of his striking claims? One sure thing is that Darwin was troubled by his own decision. In 1863, he wrote a letter to John D. Hooker, in which he stated: "I have long regretted that I truckled to public opinion, and used the Pentateuchal term of creation, by which I really meant "appeared" by some wholly unknown process."² Darwin however never reversed his decision, and the three words were kept in all remaining British editions until his death.

In his writings, Charles Darwin (1809-1882) was ambiguous about his personal religious beliefs and did not write much about it. According to his son Francis, he was of the opinion that faith was something to remain private and tended to consider himself as agnostic.³ When asked, he cautiously admitted his personal limits. Although he confessed in his autobiography⁴ doubting that his religious sentiment was "ever strongly developed",⁵ he acknowledged that his faith had varied very much along his existence. In his early years, he was pushed by his father to pursue studies in theology, which he finished in 1831. He was then invited to join an expedition team, which sailed the world during five years on board of the *HMS Beagle*. It is during this voyage that Darwin made crucial observations for the theories he would later publish, and chose the path of naturalist over the one of theologian. In the years following his return in 1836, his Christian faith seemed more and more unstable: "disbelief crept over me at a very slow rate, but was at last complete."⁶ In his autobiography, he mentions some elements that disturbed his faith, among which figured the incompatibility between natural laws and miracles, the absence of evidence regarding God's existence, and the contradiction between divine benevolence and the high presence of suffering throughout the world.

Charles Darwin is most notably famous for the evolutionary theory that carries his name. Principally formulated in his two most important works - *On the Origin of Species by Means of Natural Selection, or the Preservation of Favored Races in the Struggle for Life* (1859) and *The Descent of Man, and Selection in Relation to Sex* (1871) -, Darwinism⁷ consists of two main ideas. The first and most important one is that the evolution of living beings is shaped by natural selection. Inspired by the ideas of Thomas Malthus, Darwin had noticed that living beings could reproduce faster than their environment, which means that it is impossible for everyone to access enough resources to survive.⁸ He also remarked that variations occur among individuals across time and that these variations are transmitted from parents to offspring. This made him come to the conclusion that there is a "universal struggle for life",⁹ and that living beings who experience or inherit variations that suit the environment at best are the most likely to survive in the long term. Darwin first

¹ Darwin, 1860, 490.

² Letter to Joseph Dalton Hooker, 17 April 1863 (F. Darwin, 1887 (III), 18).

³ Letter to Mr. Fordyce, 1879 (F. Darwin, 1887 (I), 304).

⁴ During the last years of his life, Charles Darwin wrote his autobiography, which was published in parts in 1887 by his son Francis and then in a more complete version in 1958 by his granddaughter Nora Barlow.

⁵ Barlow, 1958, 91.

⁶ Barlow, 1958, 87.

⁷ The term "Darwinism" was first used in its current sense by one of Darwin's most faithful followers, Thomas H. Huxley, in 1860, and has been widely used afterwards, by his supporters and by his detractors.

⁸ Livingstone, 2003, 185.

⁹ Darwin, 1859, 62.

called this very slow process natural selection, but later stated his preference for the term “survival of the fittest”, as it does not suggest any kind of intentionality that can be implied in the word “selection”.¹⁰ The second idea of Darwinism is that living beings all share a common ancestry. Through time, they develop genetic modifications that create divisions between species, but they all have the same origins. Species are therefore dynamic and not fixed. These ideas have of course been extremely influential on evolutionary theory, but have also been explored through the lens of other disciplines.¹¹

Although Darwin cautiously tried to avoid the implications of his theory on fundamental theological conceptions, religious thinkers did not remain silent to his publications. Throughout many regions of the world, Darwinism and religion were put in dialogue. The first observation to be made from the onset is that religious intellectuals reacted in many different ways to the emergence of Darwinism and found various ways to combine their personal faith and their perception of the theory. Their position towards Darwinism reflected not only religious considerations, but also political, social and personal ones. The reception of Darwinism hence constitutes precious historical sources for they reveal the multiplicity of overlapping ideologies constituting individuals and societies. As we will see, it also sheds light on fundamental debates in which Darwinism inserts itself. One should therefore not be too quick as to reduce the relation between Darwinism and religion to a fundamental opposition, as a dichotomous reading of the current controversies between creationism and evolutionism could mislead us to believe. We will see throughout this paper that Darwinism and religion do not have to be conceptually understood as antagonistic ideas and have not been historically conceived as such.

This paper will try to grapple with the complex interaction within religious communities between Darwinism and religion, by focusing on the reception of Darwinism among religious thinkers comparatively between the Anglo-Saxon world and the Middle East from the publication of *The Origin of Species* in 1859 to the end of the 19th century. Our first spatial unit of analysis, referred to as “the Anglo-Saxon world”, is composed of the United Kingdom and the United States. The two countries can be considered here as one single region because of the strong intellectual ties linking them together.¹² Our second spatial unit of analysis will be called here “the Middle East”, even though Darwinian debates overwhelmingly took place in two cities: Beirut and Cairo.¹³ In both case studies, the geographical and chronological frames will be understood as broad entities and their boundaries will not be conceived as fixed and hermetic. As written by John Greene, the fluidity in the transmission of ideas and the mobility of individuals prohibit intellectual history from being “chopped up into centuries and countries without rendering it lifeless and meaningless”.¹⁴

Here, we will focus particularly on certain prominent religious thinkers¹⁵ and study their perception of Darwinism, which can be broken down to three main questions. The first one has been termed as the question of design and can be summed up as follows: where does a supernatural entity fit in the Darwinian idea of natural selection? The second one relates to the impact of the idea of common ancestry on the status of mankind and its presumed privileged relation to the divine. The third question is the one of the place of science. What role should science occupy in a society’s quest for modernity? The religious reception of Darwinism constantly navigated between these three questions, which concern science as much as religion and politics, and obviously remain unanswered today. The individual experiences of Darwinism that we will be looking at, when compiled, inform the collective dynamics presiding over the reception of Darwinism at

¹⁰ Bornet et al., 2011, 32.

¹¹ Herbert Spencer for instance famously wrote about the social implications of Darwinism, known under the misleading name of “social Darwinism”, which is outside of the scope of this paper.

¹² “In matters scientific and religious, or more particularly, in matters related to the debate over evolution, Britain and America did practically constitute a single community of thought during the later nineteenth century.” (Moore, 1979, 6).

¹³ Out of convenience, we will use the generic terms “the Anglo-Saxon world” and “the Middle East”, but it should be kept in mind that “the Anglo-Saxon world” comprises in reality several countries in addition to the United Kingdom and the United States, and that “the Middle East” was not yet termed and conceived as such at the end of the 19th century.

¹⁴ Greene, 1957, 68.

¹⁵ The terms “thinker” and “intellectual” are deliberately vague as to allow us to open our scope to a diversified array of individuals who only have in common a certain degree of religious faith, but share different beliefs, have diverse professional occupations and occupy various religious functions. Besides, the 19th century was marked by the omnipresence of religion in intellectual debates, and many thinkers of the time combined religious and secular functions, as evidently shown by the case of Darwin himself.

the level of a society, and help to better understand the prevailing relation between religion and science in given times and places.

The work already undertaken on Darwinism is massive and goes across disciplines. For its general reception in societies, Thomas Glick and his colleagues have fulfilled the important task of compiling a vast array of them in two edited volumes (*The Comparative Reception of Darwinism* and *The Reception of Darwinism in Europe*), which demonstrate the diversity of meanings taken by the concept of Darwinism but fail on exploiting the full advantages of the comparison to bring the discussion to address the question of the universal. Several authors have focused on the reception of Darwinism among religious circles. For the Anglo-Saxon world, James Moore composed the very influential *The Post-Darwinian Controversies: a Study of the Protestant Struggle to Come to Terms with Darwin in Great Britain and America* (1979), David Livingstone published *Darwin's Forgotten Defenders: the Encounter between Evangelical Theology and Evolutionary Thought* (1987), and in 1958, Alvar Ellegard accounted for the reception of Darwinism among the general British public in his *Darwin and the General Reader: the Reception of Darwin's Theory of Evolution in the British Periodical Press, 1859 – 1872*. For the reception of Darwinism in the Middle East, the secondary literature is scarcer. In 1986, Adel Ziadat published the very influential *Western Science in the Arab World: the Impact of Darwinism, 1860 – 1930* and in the past decades, two major works have been produced, first in 2013 with Marwa Elshakry's *Reading Darwin in Arabic, 1860 – 1950*, then in 2018 with John Livingston's *In the Shadows of Glories Past: Jihad for Modern Science in Muslim Societies, 1850 to the Arab Spring*.

This paper intends to inscribe itself in the existing literature not only by proposing new insights on the Anglo-Saxon and Middle Eastern reception of Darwinism based on primary and secondary sources, but most importantly by providing a novel comparative approach. Of course, the topic under scrutiny is particularly broad, especially considering the breadth of the periods and places considered, hence our undertaking requires humility. This study does not intend on proposing a comprehensive account of the issue, but rather to benefit from the comparative approach in order to distinguish similarities and differences between the two regions and thus discern contextual and generalizable (potentially universal) features of the reception of Darwinism. In doing so, this paper seeks to demonstrate the intricacy of the political relation between religion and science by showing how socio-political contexts were able to impact the reception of Darwinism, but also to illustrate the depth of the philosophical relation between religion and science by raising fundamental questions related to the metaphysical experience of Darwinism that are irreducible to the specific situation in which they emerge.

The following comparison will be undertaken in two steps. The first part will see us try to identify the key dissimilarities between the two regions by making use of the comparison as an individualizing operator (“*opérateur d’individualisation*”).¹⁶ Going more in depth in the Anglo-Saxon and the Middle Eastern socio-political environment in which the reception of Darwinism has taken place, we will seek to ground both cases in their historicity, which will enable us to identify important distinctions marking the specificity of each region in their experience of Darwinism. In doing so, we will not conceive the reception of Darwinism as a passive state, in which the ideas of Darwin would be neutrally given and received, but we will emphasize the way each individual, or groups of individuals, reinvented Darwinism within their own political, sociological and epistemic frames of references.

The second part of the comparison will attempt to draw parallels between the religious intellectuals' perception of Darwinism. Indeed, we will argue that after having plucked away the socio-political specificities of each context, there are striking similarities that can be observed between Anglo-Saxon and Middle Eastern religious thinkers with regard to some ideas emanating from their experience of Darwinism. However, in order to reach the core of these ideas, we will need to go beyond the differences in terms of linguistic formulations and epistemic conceptualizations. In doing so, we will realize that some questions

¹⁶ Veyne, 1976, 35.

triggered by Darwinism are independent of their socio-political context but relate to something more profound concerning the metaphysical conceptions of human nature.

THE COMPARISON AS AN INDIVIDUALIZING OPERATOR

Among all distinctions that can be made between the two contexts, the most obvious is probably the most important one. In one case, Darwin was endogenous and in the other, he was not. Darwinism was thus produced in Great Britain and transmitted to the Middle East in a way that can hardly be said to be reciprocal, in the sense that the influence of Anglo-Saxon thinkers of Darwinism on their Middle Eastern counterparts was far more important than the other way around. Here, we will describe the emergence of the Darwinian debates in both regions before seeing how the context presiding over the reception of Darwinism impacted the way the debates would be framed.

The emergence of the Darwinian debate

In the Anglo-Saxon world, Darwinism became the center of discussions in academic circles immediately after the publication of *The Origin* in 1859. In 1860 for instance took place the famous Oxford Debate during a meeting of the British Association for the Advancement of Science. On that occasion, Thomas Huxley, one of Darwin's most vocal supporters, publicly debated Darwinism with the Bishop of Oxford Sam Wilberforce, who was more skeptical. In their short discussion, it was famously reported that Wilberforce ironically asked Huxley "whether he would prefer a monkey for his grandfather or his grandmother",¹⁷ to which Huxley responded:

if (...) the question is put to me would I rather have a miserable ape for a grandfather or a man highly endowed by nature and possessed of great means and influence and yet who employs those faculties for the mere purpose of introducing ridicule into a grave scientific discussion - I unhesitatingly affirm my preference for the ape.¹⁸

In addition to the fact that this famous account was probably a romanticization of the actual exchange that took place, the Oxford Debate has often been pictured in historiography as an epitome of the conflict between religion and science, in which modern science would have demonstrated the obsolescence of religion. Unfortunately, this caricatured understanding does not render justice to the multi-layered nature of Huxley and Wilberforce's interaction, obliterating the fact that their disagreement had strong political and scientific overtones, Wilberforce notably representing a conservative polyvalent view of science, whereas Huxley was part of a rising class of modern specialized scientists.

In the following decades, Darwinism remained a prominent topic of debate among theologians and naturalists. Although Darwin's ideas were brought to the general public by newspapers, its most important protagonists remained members of the academia. Thus, a community of thinkers of Darwinism formed itself and corresponded intensively, contributing to forming the Anglo-Saxon Darwinian debate.

In the Middle East, Darwin's books were not available in Arabic before 1918¹⁹ but started to be discussed as early as the 1860s and the first commentaries on Darwinism appeared at the end of the 1870s.²⁰ At that time, the debate seemed very much centered around the city of Beirut and around one institution in particular: the Syrian Protestant College (SPC). Under the impulse of the American missionary Cornelius van Dyck, Darwinism became a common topic of conversation among students of the College. In 1876, two graduates who had become native tutors, Yaqub Sarruf and Faris Nimr, established the journal *al-Muqtataf*, whose goal

¹⁷ This formulation comes from an article published on 7 July 1860 by the weekly newspaper *The Press* (Jensen, 1988, 166).

¹⁸ This quote comes from a letter sent by Thomas Huxley to his friend Frederick Dyster on September 9th, 1860 (Jensen, 1988, 168).

¹⁹ In 1918, the Egyptian scholar Ismaïl Mazhar translated the first six chapters of *The Origin of Species*, and only completed the translation in 1964 (Elshakry, 2013, 26, footnote 6).

²⁰ John Livingston attributes to the Christian Lebanese Butrus al-Bustani to have made the first published mention of Darwinism in the middle of the 1870s. In his *Encyclopedia*, al-Bustani briefly presented key ideas of Darwinism in a rather neutral fashion and limited himself to very factual information (Livingston, 2018, 114).

was to prove “that science was the basis of civilization, and the European sciences were of universal value”.²¹ Darwinism started to be discussed in the journal from the end of the 1870s onwards, and a small community of thinkers of Darwinism formed itself in Beirut, with figures such as Shibli Shumayyil, Bishara Zilzal, Husayn al-Jisr or Louis Cheikho. In 1880, the interest in Darwinism intensified as the son of Cornelius van Dyck, William, arrived at the SPC bringing with him copies of Darwin’s major works.²²

The combination between the College’s religious and scientific missions was not uncommon among missionary schools and not necessarily seen as a problem. Quite the contrary, many considered the synthesis between religion and science as beneficial because it enabled Western missions to gain more credit in the eyes of the local communities.²³ However, the balance was fragile, and concerns were often voiced on the dangerous preeminence of education over evangelization. The authorities of the College had already expressed concerns regarding the “missionary spirit” of William van Dyck and the “orthodoxy” of his father, notably towards issues concerning Darwinism.²⁴ In 1882, the two faces of the College would eventually come to a highly publicized clash with the outbreak of the Lewis Affair, in which the College decided to dismiss a professor for having too vocally expressed his support for Darwinism. With the decision of the SPC to take a strong stance against Darwinism, Cornelius and William van Dyck resigned and the editors of *al-Muqtataf* decided to move their journal down to Cairo, and the Darwinian debate followed them to Egypt.

In both regions, the process that made Darwinism emerge as a prominent topic of discussion undoubtedly conditioned the way the discussion would be framed. In the Anglo-Saxon world, Darwinism was considered as an internal issue being part of the debate surrounding the place of religion in science. In other words, the Darwinian debate put at stake the relevance of religion as a legitimate way to assess truth. This is the reason why out of the three questions that composed religious intellectuals’ Darwinian experience – design, common ancestry and the place of science –, the first was by far the most important, because it symbolized the integration of the metaphysical in the natural. In the Middle East, Darwinism was perceived as part and parcel of Western influence and could never free itself of its foreign nature. It was discussed as a component of a wider set of political ideas related to Western modernity, which, despite its polysemy, indubitably comprised a dominant role given to science. The main question discussed by Middle Eastern religious thinkers was therefore not the question of design or the one of common ancestry, but the question of the place of science in relation with the Western model. In the following lines, we will explain how Darwinism came to be framed as part of an internal secularization process in the Anglo-Saxon world and as a component of Western modernity in the Middle East.

The Anglo-Saxon world: Darwinism as a fight about the secularization of science

The emergence of Darwinism is certainly an important event in the relation between religion and science as it constitutes a point of contention between a theistic and a positivist view of science, but it also has to be inscribed in broader processes. The publication of *The Origin of Species* is part of a rich and long relation between religion and science that had started to transform long before. In the past centuries, the modern scientific revolution had brought several unsettling issues to religious believers, especially with regard to the interpretation of the Bible. At the end of the 18th century, the geologist James Hutton had for instance coined the principle of uniformitarianism, later popularized by Charles Lyell, which postulates that the laws of nature observed at a given time have been constantly at play forever, crucially suggesting that the direct interference of God was perhaps not necessary in explaining daily natural phenomena. Then, at the beginning of the 19th century, geological discoveries proposed new chronologies regarding the age of the planet, which seemed not to correspond to Biblical ones.

²¹ Hourani, 1983, 247.

²² William van Dyck had even a small epistolary exchange with Charles Darwin from Beirut, providing him with a study on Syrian dogs, to which the British naturalist responded with words that were among the last he wrote before his death in April 1882 (F. Darwin, 1887 (III), 252-253).

²³ Makdisi, 2008, 169.

²⁴ Farag, 1972, 75.

However, rather than opposing this rapid evolution of science, religious intellectuals tried to appropriate it. To this regard emerged at the beginning of the 19th century a philosophical movement known as natural theology. Greatly popularized by Reverend William Paley (1743 – 1805), natural theologians saw science as a way to unveil the wonderful achievements of God in his creation of the universe. The idea of design was the central concept. According to Paley, the world was both so perfect and immensely complex, that it had to imply a designer. In his book *Natural Theology; or Evidences of the Existence and Attributes of the Deity* published in 1802, Paley developed the famous analogy of the watch and the watchmaker. A watch, argued Paley, like any natural object, is so complex that it is implausible that it came together by chance without having been designed by a powerful agent.²⁵

Greatly influenced by natural theology, Anglo-Saxon religious thinkers were not necessarily opposed to the ideas of natural selection and common ancestry, as many of them believed it to be compatible with their faith, provided that God intervened somewhere in the process. However, a positivist interpretation of Darwin's ideas constituted a threat, because it could participate to an ongoing movement that sought to remove metaphysical conceptions from science. *The Origin of Species* was indeed published at a moment when Anglo-Saxon science was experiencing a strong push towards secularization. As laid out by Frank Turner,

from the 1840s onward the size, character, structure, ideology, and leadership of the Victorian scientific world underwent considerable transformation and eventually emerged possessing most of the characteristics associated with a modern scientific community.²⁶

Previously, the scientific community was hardly forming an integrated and structured body of intellectuals. It was characterized by amateurism and was often conducted by clerics through religious channels. Interestingly, the term “scientist” itself had only been coined in 1834 by William Whewell.²⁷ In the middle of the 19th century however, the Anglo-Saxon scientific community experienced an intense development that was no stranger to the industrialization and the economic development of Great Britain and the United States. During that process, scientists developed three attributes that would shape the conditions in which the Darwinian debate took place: professionalization, specialization and secularization. A strong boost in membership of the most important scientific associations was accompanied by a steady decrease in the clergy's participation. The multi-functional career of scientific clergymen was more and more criticized, being increasingly perceived as a lack of expertise. A new generation of specialized scientists emerged, led by men like Thomas Huxley, John Tyndall and Joseph Hooker, who promoted a positivist scientific methodology and were supporters of the separation between science and religion. This generation quickly became extremely influent on the intellectual community, and some of them even constituted a group of intellectuals called “the X-Club” with the explicit aim of promoting a practice of science free of religious claims. They considered metaphysical scientists “citizens of two states, in which mutually unintelligible languages were spoken and mutually incompatible laws were enforced”.²⁸ This shift in the dynamics governing the scientific production of knowledge was well epitomized in the “Oxford Debate” between the young Thomas Huxley and the Bishop Sam Wilberforce.

Darwinism, being an overarching theory that had enormous implications for the conception of mankind, emerged in this context of secularization of science. Importantly, the theory could easily be interpreted both in a theistic and a positivist way, since Darwin's writings were ambiguous on the question of divine intervention. Therefore, both religious and secular scientists felt the need to address Darwinism in order to advance their position, which is why the question of design became critical. It was thus not Darwinism *per se* that was debated, but rather the integration of the divine in the Darwinian theory. The debate over the question of design was thus a proxy of a broader Victorian negotiation process over the role of religion in science, which obviously had strong reverberations in both sides of the Atlantic. Owen Chadwick sums up acutely the profoundness of the role of Darwinism in the broader process of secularization:

²⁵ Paley, 1802, 12.

²⁶ Turner, 1978, 364.

²⁷ Ross, 1962, 65-85.

²⁸ Huxley, 1894, 1.

The secularizing force was not Darwin the author of the book, or, of several books. It was Darwin the symbol, Darwin the name which stood for a process, the name which was hurled from one side to the other in the polemics of secularist platforms or journals, an imaginary Darwin, a vague Darwin, without the comfortable homely substantial outlines of the real naturalist of a Kentish village, but however imaginary and however vague still bearing a direct relationship to a scientific achievement, which few quite understood, the truth of which many doubted, but which everyone, without knowing quite what it was, knew to be a scientific achievement of the first magnitude.²⁹

The high significance of the question of design can be felt in the writings of the most important Anglo-Saxon religious thinkers of Darwinism. Let us now dive in the writings of three of them and see how they addressed this issue.

Asa Gray, Charles Hodge and James McCosh: the question of design

Asa Gray (1810 – 1888) was an American naturalist who corresponded actively with Darwin. He can be considered as the leading supporter of Darwinism in the United States, like Thomas Huxley was in the United Kingdom.³⁰ He published several articles on Darwinism, and compiled the most important ones in a volume called *Darwiniana*, published for the first time in 1876. Charles Hodge (1797 – 1878) can be seen as Darwin's most vocal opponent in the United States. He was an American Presbyterian who spent almost his entire career at the College of New Jersey (Princeton), in which he was the Principal of the Theological Seminary. He wrote extensively on the relation between science and religion, touching upon Darwinism in various works, most notably in a polemical pamphlet entitled *What is Darwinism* (1874), to which Asa Gray responded. James McCosh (1811 – 1894) was a Scottish Presbyterian who was the President of the College of New Jersey between 1868 and 1888. He is remembered as a prominent actor of the Anglo-Saxon Darwinian debate because he publicly proclaimed his acceptance of an adapted understanding of Darwinism³¹ a few days after his appointment at Princeton, a noteworthy position for the president of a strong Protestant institution. These three religious intellectuals are interesting to study together because they represent three distinct ways of combining religious faith and Darwinism. Whereas Gray was definitely supportive of Darwinism, Charles Hodge was radically opposed to it and McCosh can be seen as occupying some sort of middle ground.

The three thinkers actually had a lot in common in their experience of Darwinism. Hodge and McCosh certainly agreed with Gray when he wrote that “the issue between the skeptic and the theist is only the old one, long ago argued out – namely whether organic Nature is a result of design or chance.”³² Hodge even explicitly cited Gray in *What is Darwinism*: “the exclusion of design from nature is, as Dr. Gray says, tantamount to atheism.”³³ McCosh explained his conception of design by countering the positivist interpretation of Darwinism that gave a big importance to chance.³⁴ His reasoning is particularly compelling:

We cannot speak of an event being produced by chance. Such language has either no meaning, or a meaning opposed to the universally acknowledged principles of all science and all philosophy. In respect of causal connection, chance has and can have no place; it is absolutely excluded. But in respect of other connections of co-existence or succession, of number and property, there is room for chance, and, as opposed to chance, of designed coincidences and correspondences, and a co-operation of associated means for the production of a given end. In respect of production, there can be no such thing as chance, but in respect of disposition there may. There are mutual relations which are not designed, even as there are relations which are designed. We

²⁹ Chadwick, 1990, 174.

³⁰ This is not without a certain degree of irony, given that Gray was a strong Protestant arguing for a theistic interpretation of Darwinism whereas Huxley was devoting tireless efforts to emancipate science from religious considerations (Livingstone, 2003, 194).

³¹ McCosh openly acknowledged that he supported a personalized version of Darwinism: “I felt it to be my only course not to reject the truth because it was proclaimed by some who turned it to an irreligious use, but to accept it wherever it might lead, and to turn it to a better use. I let it be known that while I thought there was truth, I believed there was error in the common expositions of evolution, and that the work of the coming age must be to separate the truth from the error, when it would be found, I was sure, that this, like every other part of God's work, would illustrate his existence and his wisdom.” (McCosh, 1890, VIII).

³² Gray, 1860, 153.

³³ Hodge, 1874, 177. The words “tantamount to atheism” were first used by Gray in an article he wrote for the *Atlantic Monthly* in 1860 entitled “Natural Selection not inconsistent with Natural Theology” (Gray, 1888, 138).

³⁴ Chance could notably be seen as operating the variations from parents to offspring.

cannot speak of accidental occurrences, but we may speak of accidental concurrences. We are to shew that in the place where there is room for chance, there we have the most striking examples of design.³⁵

The disagreement between Gray, McCosh and Hodge concerned the compatibility between Darwinism and design. For Gray and McCosh, Darwinism left space for design. Gray believed a divine entity to operate at two levels of evolution: it designed the variation given by the parents to the offspring and favored the survival of the fittest through the process of natural selection. Drawing on natural theology, McCosh criticized the thinkers making a clear-cut distinction between natural selection and supernatural design, because “the supernatural power is to be recognized in the natural law.”³⁶ The difference between Gray and McCosh was above all that the first followed Darwin pretty much all the way whereas the second was not fully convinced in the ability of natural selection to explain the entire process of evolution, most notably with regard to crucial evolutionary transitions (from the dead to the living, from the unconscious to the conscious and from the brute to man).³⁷ In his last book, *The Religious Aspect of Evolution*, McCosh also seemed to add to natural selection a Neo-Lamarckian view emphasizing the role of the environment and the individual himself in the evolution process.³⁸ Hodge certainly disagreed with Gray and McCosh on the point that Darwinism was compatible with design. For him, Darwin’s own words excluded it because his entire system relied on chance, since the variations that directed evolution were said to be accidental. According to Hodge, the expression “natural selection” would have been purposefully coined to oppose “artificial selection” (manmade) and “supernatural selection” (divinely driven). This led him to conclude his pamphlet *What is Darwinism* with the following words:

The conclusion of the whole matter is, that the denial of design in nature is virtually the denial of God. Mr. Darwin’s theory does deny all design in nature, therefore, his theory is virtually atheistical; (...) We have thus arrived at the answer to our question, What is Darwinism? It is Atheism.³⁹

In sum, there was a consensus among the three religious intellectuals that Darwinism needed to be compatible with design in order to be accepted. Their disagreement simply relied on the question of the compatibility between Darwin’s writings and designed evolution. In his answer to Hodge’s pamphlet, Gray did not deny the importance of design but stressed that Darwinism explicitly left space for it.⁴⁰

In the writings of the three thinkers, one can sense how this question of design relates to a wider context of scientific and political secularization. Hodge for instance accused Darwinism of being popular only because it explicitly rejected a supernatural intervention, at a time when it happened to “suit the prevailing state of mind”.⁴¹ In his speech welcoming the arrival of James McCosh as the new President of the College of New Jersey, he stressed the importance for the College not to separate religion from science. Directly addressing McCosh, he formulated the wishes of the Board of Trustees:

We would in a single word state what we desire. It is that true religion may be preached, and taught, and lived. (...) That the students should be made to feel that the eternal is infinitely more important than the temporal (...). But religion and science are twin daughters of heaven. There is, or there should be, no conflict between them. We earnestly desire, therefore, that all departments of knowledge embraced in the curriculum of such an institution, should be here so cultivated as to secure the highest measure of mental culture, the richest stores of acquired knowledge, and the formation of the best habits for future study and future action.⁴²

McCosh fully followed Hodge in his fight against positivism, and it is probably the main reason why his public acceptance of Darwinism was not met with strong criticism among the conservative leadership of the College. For McCosh, it was absolutely crucial to instill the idea to students that religion and science were perfectly compatible:

³⁵ McCosh and Dickie, 1856, 43-44; Morris, 2014, 388.

³⁶ McCosh, 1890, 7.

³⁷ McCosh, 1871, 63-64.

³⁸ This supports the point that McCosh had an adjusted understanding of Darwinism (McCosh, 1890, 16 -18; Moore, 1979, 141-142).

³⁹ Hodge, 1874, 173-177.

⁴⁰ Gray, 1874, 268-269.

⁴¹ Hodge, 1874, 146-149.

⁴² Hodge, 1868, pp. 10-12.

I have all along had a sensitive apprehension that the indiscriminating denunciation of evolution from so many pulpits, periodicals, and seminaries might drive some of our thoughtful young men to infidelity, as they clearly saw development everywhere in nature, and were at the same time told by their advisers that they could not believe in evolution and yet be Christians. I am gratified beyond measure to find that I am thanked by my pupils, some of whom have reached the highest position as naturalists, because in showing them evolution in the works of God, I showed them that this was not inconsistent with religion, and thus enabled them to follow science and yet retain their faith in the Bible.⁴³

Middle East: Darwinism as a component of Western imperialism

In the Middle East, the process giving birth to the Darwinian debate caused the discussion to be framed differently. Indeed, its emergence in Westernized circles, as well as the theory's British origin, made Middle Eastern thinkers conceive it as an external input. Related to that, Darwinism started to be discussed at a moment when the region was experiencing diverse overlapping modernizing imperial influences that had profound consequences on local societies. In consequence, Darwinism came to be conceived as a component of foreign imperialism that had a strong link to the notion of modernity that Middle Eastern intellectuals were trying to define. Let us now have a look at the imperial situation experienced by Egypt and Syria⁴⁴ at the end of the 19th century, and see how it reflected itself in the Darwinian experience of religious thinkers.

In the second half of the 19th century, the Western shores of Syria and Egypt, the two central places of the Middle Eastern debate on Darwinism, were subject to a network of competing imperial forces. The formal control of the territories belonged to the Ottoman Empire, but European influence was developing both through informal imperialism characterized by missionary enterprises, and formal colonization in Egypt from 1882 onwards. In addition, Egypt had a certain degree of autonomy in participating in the region's modernization, and even carried out a few imperialist enterprises. These imperial pressures contributed to forge a certain idea of modernity in which science occupied a privileged position, which would prove crucial in creating the conditions for the Darwinian debate to emerge in the Middle East.

We mentioned previously how Darwinism was brought to discussion at the Syrian Protestant College. In fact, the College was not an isolated enterprise. It was established as part of a wider American Protestant missionary effort to evangelize the surroundings of the Holy Land, which started back in the 1820s.⁴⁵ Initially, the exclusive priority of these missions was the evangelization of the people but, having to face much local resistance, missionaries quickly realized the need for them to rethink their methods. Despite much internal controversy on the definition of the mission, science and most especially medicine would become a way of approaching local communities and persuading them of the benefits of Western civilization and religion. Missions started adopting a more active political role, and they invested intensively in the creation of schools and press facilities, which played a tremendous role in the promotion of science that enabled the emergence of the Darwinian debate.

Western missions were not the only imperial force to promote science and modernity in the Middle East. In Egypt, imperialism and science had a long and dense history going back to Napoleon and the scientific dimension of his Egyptian expedition. French scientific imperialism continued throughout the 19th century, particularly through the enduring mark left by the Saint-Simonians, who pushed strongly for Egyptian modernization and participated in the construction of the Suez Canal. Under the reign of Khedive Ismail (r. 1863 – 1879), Egypt intensified modernization efforts and became closer to European powers. The acceleration of the modernization process materialized in the establishment of schools, the translation of Western books in Arabic and the fast-paced development of press. Thus emerged an active intellectual community interested in the latest scientific discoveries. During British formal occupation, Egyptian

⁴³ McCosh, 1890, IX-X.

⁴⁴ The term "Syria" is here understood in its 19th century meaning, which was comprising modern-day Syria, Lebanon, Jordan, Palestine and Israel.

⁴⁵ British missions also settled in the region at the same time. Together with the Americans, they challenged a much older French missionary presence, which created a certain sense of competition that pushed missionary schools to strive for educational excellence (Livingston, 2018, 179).

intellectuals benefitted from more freedom than in other parts of the Ottoman Empire, and their links with European thinkers grew stronger. At the end of the 19th century, Cairo was a center of intellectual activity that hosted the most important scientific periodicals, such as Sarruf and Nimr's *al-Muqtataf* and Jurji Zaydan's *al-Hilal*.

Finally, the emergence of an intellectual community interested in modern science must also be inscribed in broader dynamics of Ottoman modernization. Indeed, the middle of the 19th century was marked by numerous reforms of the Ottoman political and economic apparatus. Education was a recurring theme in this process of modernization, and the Ottoman schooling system was vastly expanded during the second half of the 19th century. Several institutions of higher studies were established, but their focus was mostly on military and engineering sciences. Foreign influence on the developing education system was very important and numerous European scholars were translated or were directly teaching in Ottoman schools. This modernizing trend coming from Istanbul had reverberations all the way to Beirut and Cairo.⁴⁶

The network of imperial influences created a fertile soil for an intellectual environment to emerge in Beirut and then blossom in Cairo. Thus, the crucial contribution of Western missions for Middle Eastern scientific interest is also to be understood as answering a local demand for modernity that had been triggered by broader ongoing dynamics of modernization from diverse provenances. In other words, the Darwinian debate could not have emerged if local intellectuals had not been eager to seize the opportunity. For Middle Eastern intellectuals, Darwinism was mostly seen as a new component of an overarching idea of modernity, which occupied their minds before Darwin's ideas had started to be discussed. From the onset, Darwinism was associated with modernity and Western imperial influence, and rarely debated in isolation from other prominent modern issues such as the questions of civilizational progress and materialism. The way each Middle Eastern intellectual positioned himself towards Darwinism thus usually mirrored a certain perception of the West that was itself part of a more general view of modernity. Darwinism was therefore not discussed as a clearly delineated set of ideas and individuals produced meanings that went beyond Charles Darwin's scientific theories, which many of them did not even read directly. In fact, Darwinism was not always a clearly defined theory, since it was often discussed and confused with evolutionism. Let us now have a concrete look at the way Middle Eastern religious thinkers grounded their acceptance of Darwinism in their perception of Western influence and more generally their vision of modernity.

Western modernity and the place of science: al-Muqtataf, Shumayyil, al-Afghani and al-Jisr

On one side, strong support for Darwinism often went hand in hand with a conception of the West as a source of inspiration, most importantly with regard to the place of science. Apart from Yaqub Sarruf and Faris Nimr, which we mentioned previously, a good representative of this trend was Shibli Shumayyil, who was a graduate of the SPC. After having spent one year in Paris where he was strongly influenced by German materialism, he published a book in 1884 entitled *A Translation of Büchner's Commentaries on Darwin* with his personal commentaries, which triggered intense debates on the implications of Darwinism and more broadly of materialism on Middle Eastern societies.

Shumayyil, Sarruf and Nimr, all from the surroundings of Beirut, knew each other quite well. They all showed themselves favorable towards Darwinism because they agreed on the fact that the acceptance of Darwinism was part of a much-needed modernization process, which could only be pursued through science. They all believed religion to be incapable of leading people "out of their backwardness any more than national fanaticism"⁴⁷ and they shared a certain conception of social progress that was strongly influenced by Auguste Comte's teleological conceptualization of the three developmental stages of society (theological,

⁴⁶ However, education in Egypt and in Syria was in practice carried out mostly by local religious communities for which modern science was more often not considered as a priority. Furthermore, the intellectual ties linking Cairo to Beirut seemed stronger than those linking both cities to Istanbul, probably for linguistic, religious and cultural reasons. In sum, the role played by the Ottoman Empire in the promotion of modern science in Egypt and Syria should not be overstated.

⁴⁷ *Al-Muqtataf*, 1907, quoted in Glass, 2004, 191.

metaphysical and positivist). Correspondingly, they were great admirers of Japanese modernization, which gave hope “to all Easterners who strive to achieve greater accomplishments in their own civilization.”⁴⁸

For his part, Shumayyil explicitly associated the themes of evolution, science and progress in his writings, as can be seen in the 1910 re-edition of his commentaries on Büchner, entitled “the philosophy of evolution and progress” (*falsafat al-nushu wa al-irtiqa*). In it transpires his perception of Arab somnolence:

My writings caused a great deal of controversy (...) And all this fuss made me want to slap people awake from their deep slumber (...) so as to reach us Easterners (...) deep in torpor (...) housed in stasis, and on the margins of life, neither dead nor alive.⁴⁹

Politically, Shumayyil, Sarruf and Nimr were rather critical of the Ottoman Empire. Like many of their contemporaries, they considered it partly responsible for Middle Eastern backwardness. Sarruf and Nimr were themselves particularly close to the British authorities in Cairo, most especially to Lord Cromer, which caused them some hostility from Arab nationalist movements. This admiration for Western modernity also translated in the fact that unlike many of their Middle Eastern counterparts, Sarruf and Nimr did not feel the need to trace a genealogy between modern scientific discoveries and Arab pre-modern scholarship:

The share of Ibn Miskawaih and all the other scholars of the Arabs, Persians, Indians, Greeks and Romans in the theory of evolution is like a small boat, which today is built in rural areas and can accommodate at most two or three people. Darwin, on the other hand, is like a steamship crossing the ocean with ten thousand passengers and equipped with engines of forty thousand horsepower.⁵⁰

There was however a point about evolution on which Shumayyil, Sarruf and Nimr disagreed; the first was a proponent of a materialist understanding of Darwinism, whereas the editors of *al-Muqtataf* explicitly left space for supernatural intervention.⁵¹ This disagreement reflected wider debates about the role of religion in scientific progress that were of course not restricted to the Anglo-Saxon world. Shumayyil tended to conceive religion and science as opposed, whereas Sarruf and Nimr believed in their symbiosis for two reasons. Firstly, the editors of *al-Muqtataf* feared that Shumayyil’s oppositional conception of religion and science would threaten the acceptance of evolution and more broadly of science among the general public.⁵² And secondly, Sarruf and Nimr were wary of the moral implications for a society to be governed by a conception of science entirely devoid of religion. During World War I, Sarruf for instance debated with Shumayyil about the link between German war atrocities and the predominance of materialist philosophy in Germany, reflecting similar debates in Europe triggered by Henri Bergson.⁵³ In sum, despite their disagreement on the specific role played by religion in their understanding of Darwinism, Sarruf, Nimr and Shumayyil were favorable towards Darwinism because it corresponded to their broader conception of modernity, which was strongly linked to their favorable perception of the West.

On the other side, suspicion towards Western modernity tended to push intellectuals to be more skeptical in their reception of Darwinism, or at least to frame their understanding of the theory in an ideological distancing from the West. Let us take Jamal al-Din al-Afghani and Husayn al-Jisr as two striking examples of that trend. Even though they ended up with different opinions on Darwinism, their writings demonstrate a certain reluctance to accept the theory, which reflects a broader hesitant positioning vis-à-vis Western political and intellectual influence.

Al-Afghani was an influent political and religious Islamic intellectual of the end of the 19th century. Although we know he moved extensively throughout the Middle East and even travelled to Europe, the details about his biography are disputed. His positioning vis-à-vis the West is particularly ambiguous. On one side, he was a prominent anti-imperialist thinker seeking to create a unified Muslim front to counter Western imperialism, but on the other side he showed himself admiring certain features of Western modernity, most notably with

⁴⁸ Article of *al-Muqtataf* quoted in Elshakry, 2013, 91.

⁴⁹ Shumayyil, *The Philosophy of Evolution and Progress*, 1910, quoted in Elshakry, 2013, 110.

⁵⁰ *Al-Muqtataf*, 1908, quoted in Glass, 2004, 433.

⁵¹ Interestingly, they did not formulate the role of the divine in the evolution process as “design”, like their Anglo-Saxon counterparts.

⁵² Glass, 2004, 424.

⁵³ Ziadat, 1986, 52-57.

regard to the utmost importance of science. “The conflict between a recognition of the urgent need to adopt Western techniques and the equal need to combat dumb admiration of the West and feelings of inferiority accounts for many of Afghani’s contradictions.”⁵⁴ His opinion on Darwinism is best contained in a famous book called *Refutation of the Materialists* (1881), in which he devoted a few pages to dispute Darwin’s ideas. Al-Afghani’s writings however betray a mistaken understanding of the theory, notably manifest when he stated that “according to the views of this individual [Darwin], it would be possible that after the passage of centuries a mosquito could become an elephant and an elephant, by degrees, a mosquito.”⁵⁵

Husayn al-Jisr was a Muslim theologian from the Syrian city of Tripoli. After studying at al-Azhar University, he founded a school in his hometown and then worked as a teacher in Beirut, where he developed a high interest for modern science. Al-Jisr was a reader of *al-Muqtataf* and was well connected to the SPC. In 1888, he published a book entitled *The Hamidian Treatise*⁵⁶, which simultaneously sought to demonstrate the contradictions of “the atheistic naturalists-materialists”⁵⁷ and to show that science and Islam were perfectly compatible. In his work, al-Jisr discussed evolution⁵⁸ and showed himself critical of a purely materialistic understanding. He was however ready to accept many evolutionary ideas, since “definitive rational evidence” could force “to interpret the literal wording of these [Qur’anic] texts, as is their rule in order to harmonize between a transmitted proof [religion] and a contradicting rational proof [science].”⁵⁹ Even if they adopted different postures on Darwinism, al-Afghani and al-Jisr both used it as an entry point to discuss modernity, which they sought to define independently from the Western model.

Most importantly, they agreed on the dangers of materialism. For them, it was provoking the moral decay of society as it had already done in the West.

Whosoever observes the condition of people in the West will see the extent to which the school of materialists has been popularized and the belief of the masses in the existence of the soul and of punishment in the afterlife has diminished. They feel free to commit all and any sins.⁶⁰

For al-Jisr, materialist evolution was definitely contrary to religion and was therefore to be rejected. However, although he considered evolution to be incompatible with a mainstream interpretation of the Scriptures, he stated that a theistic understanding of Darwinism, if proven, could require scriptural re-interpretation. For al-Afghani, it was indubitable that Darwinism had to be opposed, since Darwin himself was a leader of the modern school of materialism.⁶¹ In *Refutation of the Materialists*, he explained that religion was essential for a functional society and for human relations,⁶² so by opposing religion, materialism was actually threatening the social order.

Another feature of al-Afghani and al-Jisr’s conception of modernity that stands out in their writings on Darwinism is that modernity was not opposed to tradition.⁶³ Al-Afghani and al-Jisr valued science greatly, but contrarily to Shumayyil, Sarruf and Nimr, they did not share a teleological conception of time conceiving science as constantly looking towards the future, but they believed that the past was itself a source of inspiration. Thus, they emphasized the links between evolution, the Qur’an and the writings of medieval Islamic scholars, with the aim to demonstrate that science, and more generally modernity, was an integral part of the Islamic religion and traditions. This argument was notably brought up by al-Afghani when he opposed Ernest Renan’s characterization of Islam as incapable of progress, by reminding his French

⁵⁴ Keddie, 1968, 96.

⁵⁵ Al-Afghani, *The Truth about the Neicheri Sect*, 1880-1881 (Keddie, 1968, 136). This statement is incorrect for many reasons, but notably because it conceives evolution as having no direction.

⁵⁶ As its name indicates, the book was dedicated to the Ottoman sultan Abdulhamid II.

⁵⁷ Elshakry, 2013, 140.

⁵⁸ In his book, al-Jisr does not specify whether he speaks of a particular theory of evolution or not. Nevertheless, his conception of evolution, as well as the timing and the context of publication induces that *the Hamidian Treatise* was most probably indirectly addressing Darwinism.

⁵⁹ Al-Jisr, 1888 (Bentlage, 2017, 148).

⁶⁰ Al-Jisr, 1900 (Elshakry, 2013, 138).

⁶¹ Al-Afghani, *The Truth about the Neicheri Sect* (Keddie, 1968, 135)

⁶² According to al-Afghani, three religious notions were indispensable to hold society together: man is the “noblest of creatures”; man’s community is the “noblest one”; there is an afterworld. With regard to interpersonal interactions, religion produced three crucial qualities: shame, trustworthiness and truthfulness (Al-Afghani, *The Truth about the Neicheri Sect* (Keddie, 1968, 133 and 144-147).

⁶³ Picardou, 2010, 74.

counterpart of the importance of science among Muslim medieval scholars.⁶⁴ Al-Jisr also devoted tremendous efforts to reconcile Islamic scriptures with scientific theories, opening the gates of reinterpretation to the Qur'an to be compatible with scientific evidence.

In consequence, both agreed that modernity had to be sought in adequacy with religion and traditions, and in opposition to materialism. This explains why al-Afghani acclaimed al-Jisr's publication of *The Hamidian Treatise* in 1888 despite the timid opening to Darwinism. For al-Afghani, the most important was al-Jisr's position on the compatibility of modernity and tradition, and his unequivocal rejection of materialism. His specific position on Darwinism was secondary. In fact, al-Afghani and al-Jisr had different opinions on Darwinism only because the first saw it as materialistic, whereas the second was open to a theistic understanding of the theory, which echoed somehow the difference between Hodge and McCosh in the United States.

Even though al-Afghani's and al-Jisr's fight against materialism seems similar to the Anglo-Saxon debate regarding design, the big difference was that the Islamic scholars primarily framed their perception of Darwinism in relation to the rejection of an undesirable foreign influence. By opposing materialism and inscribing science in Islamic tradition, al-Afghani and al-Jisr sought to remove modernity's Western appearance and thus appropriate it to an Islamic culture they were attempting to revitalize. They were both critical of those advocating for mere imitation of the West (*taqlid*), which can be seen in the titles of their respective writings addressing Darwinism. Al-Jisr called his book *The Hamidian Treatise on the Truth of the Islamic Religion and the Verity of Muhammad's Sharia*, explicitly placing faith in the hands of the sultan to promote a conception of modernity based on a combination of science and religion. Al-Afghani originally chose the title *The Truth about the Neicheri Sect and an Explanation of the Neicheris*⁶⁵ in order to oppose a school of thought led by Sayyid Ahmad Khan that was seen as leading society to follow the Western model. Al-Afghani's and al-Jisr's distancing from the West can also be seen in their political allegiances. After the publication of his book, al-Jisr became closer to the Ottoman sultan, and al-Afghani, retaining a continuous opposition to Western imperialism, sided with various Middle Eastern local political leaders while developing a pan-Islamist ideology.

In sum, it appears that although the Darwinian debate in the Middle East addressed issues that were close to those discussed in the Anglo-Saxon world concerning the question of supernatural intervention and common ancestry, the factor determining the position of Middle Eastern thinkers towards Darwinism seemed to be above all the perception of the West rather than the compatibility of the theory with design. In fact, the word "design" rarely appeared in the writings of Middle Eastern thinkers. The main question for them was revolving around the integration of science in the organization of society, whereas in the Anglo-Saxon world, it was about the role of religion in making sense of the natural world. Therefore, Anglo-Saxon religious thinkers framed their perception of Darwinism in biological, philosophical and theological terms, whereas their Middle Eastern counterparts used more explicitly social and political notions. This for instance translated in the fact that the Middle Eastern Darwinian debate tended to shift more often towards a discussion on Spencerism (also misleadingly known as "social Darwinism"), which explicitly politicized a certain understanding of Darwin's ideas.

The difference between a Middle Eastern Darwinian debate focused on the question of Western influence and an Anglo-Saxon one centered on the question of design is also inextricably linked to the composition of the intellectual communities discussing Darwinism. In the Middle East, the most influent protagonists of the early discussion on Darwinism were close to westernized circles and to local political leadership. In addition, almost none of them was a specialized biologist. They therefore tended to inscribe their opinion on Darwinism in their views about Western modernity, which concerned first and foremost the place of science and religion in society. In the Anglo-Saxon world, most prominent religious thinkers of Darwinism were

⁶⁴ Al-Afghani, *Answer of Jamal al-Din to Renan* (Keddie, 1968, 185).

⁶⁵ The term "Neicheri" was directly derived from the English word "nature", and was used in a pejorative sense in 19th century India – where al-Afghani originally wrote his pamphlet – to designate the followers of a materialistic understanding of nature. Since this term was not used so much in the Arab world, the title was transformed to "Refutation of the Materialists" in the Arabic translation.

active academic members usually formed as theologian or biologist and were rarely political theorists. They were themselves not as close to political elites, and did not straightforwardly inscribe their perception of Darwinism in a set of political ideas.⁶⁶

LINKS AND SIMILARITIES

As we just saw, the main distinction to be made between the Anglo-Saxon and the Middle Eastern receptions of Darwinism relates to the framing of the debate. Whereas the Middle Eastern reception of Darwinism was directly linked to the question of the place of science that was itself associated to Western influence, the Anglo-Saxon one was focused on the issue of design, because Darwinism was primarily perceived as being part of a broader process of secularization of science. However, as we will attempt to demonstrate here, the differences in the reception of Darwinism should not be overstated, as many aspects showed a considerable level of similarity between the two regions.

The resemblance was partly due to the numerous connections existing between the two regions at a time of high human and intellectual mobility, even though it should be kept in mind that the political conditions that presided over the emergence of the Darwinian debate in the two regions (as well as Darwin's own provenance) prevented the exchange of ideas to be reciprocal. The Western influence on the educational environment in which Middle Eastern religious thinkers of Darwinism have evolved enabled Anglo-Saxon intellectuals to be much more influential on their Middle Eastern counterparts than the other way around. In addition, there seems to be a fifteen years gap between the two regional receptions of Darwinism, which also accounts for the asymmetrical intellectual impact. When the debate erupted in the Middle East, the first Anglo-Saxon thinkers of Darwinism, such as Gray, Hodge and McCosh, were already towards the very end of their career.

The influence of Anglo-Saxon natural theologians was palpable in the writings of Middle Eastern thinkers, as their ideas could easily be shared through Western missionary institutions. Thus, the very first article mentioning Darwinism in *al-Muqtataf*, written by Rizqullah al-Birbari, a native tutor of the SPC, was based on a reasoning inspired by Charles Hodge's *What Is Darwinism*,⁶⁷ and Sarruf and Nimr did not hesitate to quote James McCosh stating that "evolution is a law of God quite as much as gravitation and vital assimilation".⁶⁸ In his *Hamidian Treatise*, al-Jisr explicitly showed his affinity with natural theology:

If we saw a watch among watches that tells the time and all its parts were known to include a most wonderful construction, built upon principles of engineering, systematic measurements, and mechanical laws, exact in detail and organization, so we must conclude that it has a manufacturer that manufactured it.⁶⁹

However, this contextual exchange of ideas does not seem sufficient to explain the resemblance presented by Anglo-Saxon and Middle Eastern religious thinkers in their ideas, reasoning and arguments about Darwinism. Indeed, the level of similarity between the two regions seems to suggest that there is something about Darwinism that transcends geographical and cultural barriers.

[The study of Western science in the Arab world] also shows that Arab thinkers had ideas and preoccupations similar to their Western counterparts.⁷⁰

It is interesting to note that the controversy which raged between the Darwinists and the anti-Darwinists during the last decade of the nineteenth century and the early part of the twentieth [among Arab intellectuals] raised practically all the major problems that were raised a generation earlier by English Victorian intellectuals.⁷¹

⁶⁶ It also appears that the Anglo-Saxon Darwinian debate took place at a certain distance from the state. It was interestingly not connected to discussions on imperialism, and the universal character of Darwinism was usually not even questioned.

⁶⁷ Al-Birbari, "On the Origin of Man", *al-Muqtataf*, April and May 1877 (Glass, 2004, 418-419).

⁶⁸ *Al-Muqtataf*, "Charles Darwin", 1882 (Mohammad, 2000, 248); McCosh, 1876, 47.

⁶⁹ Al-Jisr, *The Hamidian Treatise*, 1888 (Elshakry, 2013, 131).

⁷⁰ Ziadat, 1986, xi.

⁷¹ Sharabi, 1970, 69.

Here, we will identify four striking parallels between the two receptions of Darwinism that stand out from the writings of the thinkers under scrutiny.

Firstly, in both cases, Darwinism left few religious thinkers indifferent. The far-reaching implications of Darwin's ideas on metaphysical matters such as the conception of time, the relation to other living beings, the status of mankind and the omnipotence of the Divine caused religious communities from both sides to give intense attention to the theory. In addition, the fact that such an important theory could be interpreted either within or without a theist scope raised the Darwinian debate to a major issue of broader disputes regarding the production of knowledge, which preoccupied Middle Eastern religious thinkers as well as Anglo-Saxon ones. Hence, the intensity of the reactions towards Darwinism was extraordinarily high, both in positive and in negative terms, as demonstrated by the great admiration expressed by Sarruf, Nimr or Gray, and the considerable distaste voiced by Hodge and al-Afghani. The wide attention attracted by Darwinism contributed in both regions in creating an integrated intellectual community that proved particularly mobile throughout their respective regions. The exchanges were regular and intense, and thinkers of Darwinism quickly came in contact with each other. Some institutions played key roles in the establishment of the debate, like the Syrian Protestant College or the periodical *al-Muqtataf*, as well as the Evangelical Alliance in Europe and the College of New Jersey. In the United States, Asa Gray, James McCosh and Charles Hodge were rather famous in the intellectual community and they even often referred to each other in their publications on Darwinism. Their ideas were relayed in the Middle East through missionary institutions, where they inspired some of the greatest thinkers of Darwinism like Sarruf, Nimr, Shumayyil, al-Afghani and al-Jisr, whose writings would then travel throughout the region and come in dialogue with each other.

Secondly, both regions experienced a vast diversity of positions towards Darwinism and scholars failed to identify variables that perfectly explained religious individuals' position towards Darwinism. In his quantitative analysis of British periodicals published between 1859 and 1872, Alvar Ellegard distinguished several factors that seemed to be correlated to the perception of Darwinism, such as the level of education, political ideology and religious affiliation.⁷² James Moore argued in his book that orthodox theology had a better chance of peacefully coexisting with Darwinism than liberal theology, because of its consonance with natural theology.⁷³ And Adel Ziadat identified secularism as the decisive factor determining the perception of Darwinism.⁷⁴ In this paper, we have argued that in the Anglo-Saxon world, the breaking point was the conception of the compatibility between Darwinism and design, and in the Middle East, it was the perception of Western modernity. However, although these factors are well informative, none of them is fully satisfying. It is extremely complicated to determine exactly what led some individuals to believe Darwinism to be compatible with design and some others to disagree, and it is similarly complicated to explain why some intellectuals were enthusiastic in the face of Western modernity and some were not. In the end, it seems like Darwinism depended on a vast array of considerations, including personal (psychological) ones, and was therefore experienced differently by each individual. There is therefore something irredeemably subjective in the experience of Darwinism that cannot be fully explained by the social and political environment.

Thirdly, Darwinism was perceived in both regions as belonging to a certain idea of modernity, no matter the polysemy of this notion. Among religious communities from both sides, there was a widespread feeling that societies were experiencing rapid change, and that religion as an institution, an intellectual community and a set of metaphysical conceptions had to make the right choices in order not to be left behind. We spoke extensively of solutions found by religious thinkers to associate religion and modernity. Natural theology was one of them, and inspired both Anglo-Saxon and Middle Eastern thinkers, in Christian and in Muslim circles.⁷⁵ The importance of strengthening the link between religion and modernity could be particularly felt

⁷² Ellegard, 1958, 338-367.

⁷³ Moore, 1979, 15-16.

⁷⁴ Ziadat, 1986, xi.

⁷⁵ Apart from natural theology, another interesting theological current emerged in response to modernity among Islamic thinkers, under the name of "*tafsir ilmi*" (scientific exegesis). This current of scriptural interpretation consisted in seeing the scientific discoveries as predicted by Qur'anic scriptures, and was popularized by Ibn Ahmad al-Iskandarani in the 1880s and strongly promoted later by the famous Islamic thinker Muhammad Abduh.

in the writings of James McCosh and Husayn al-Jisr with regard to their pedagogical functions, both of them consenting special efforts to make sure the idea of compatibility between religion and modernity would be passed over to the next generations.

Fourthly and most importantly, religious thinkers from both sides addressed Darwinism through the three same issues: design, common ancestry and the place of science. Their weight differed, but all three were systematically discussed in some way. This suggests that these three questions went beyond geographical and cultural differences and contained something concerning the core of the human experience. The first issue – *design* – concerns the role of the metaphysical in natural phenomena. With regard to Darwinism, it relates to the influence of the supernatural on the development of life from its very origins, and therefore has to do with the foundations of the conception of the Divine. The second issue – *common ancestry* – concerns the status of mankind. It relates to its supposed essential supremacy above other living beings, as well as its privileged position for the Divine, and therefore has to do with the basic definition of Man. And the third issue – *the place of science* – relates to the choice of the epistemological method that will be considered as legitimate in the establishment of truth. It concerns the ways in which individuals will constitute the meaning of their environment and of their personal existence, and thus relates to the very essence of Truth. In short, Darwinism refers to the fundamental conceptions of God, Man, and Truth and seems to powerfully challenge each of these three ideas in the minds of religious intellectuals, regardless of their political opinion, their religious belief, or their personal background.

In sum, after having taken away the political specificities of each region, some striking parallels appear with regard to the ideas, meanings and preoccupations associated by religious thinkers to Darwinism. These commonalities are probably due to a certain extent to the numerous connections existing between the regions at the time, but they are also to be understood in the profound implications borne by Darwinism on the very nature of man's conception of its own existence. Hence, follows from these striking similarities the burning question of universality. At the end of the day, Darwinism speaks first and foremost about biology and claims to explain the process that governs the evolution of living beings in all corners of the world. Perhaps the universal character unquestionably claimed by Darwinism deserves to be reflected upon in social and political terms to understand the way its reception is framed, but this does not deny the possibility for its universal biological application to have universal intellectual implications.

CONCLUSION

Two main ideas have been argued out in this paper. The first one pertains to the relation between religion and Darwinism, and can be stated as follows: not only is it conceptually misleading to conceive religion and Darwinism as necessarily antithetical, but it is also historically incorrect, and intellectuals found a vast array of possibilities to combine their understanding of Darwin's theory and their personal religious faith. Although this idea has reached a certain consensus among scholars of the history of religion and science, this argument deserves to be restated here since the idea of essential contradiction between religion and Darwinism is still very present in popular conceptions today. There is some truth to this idea, and different statistical surveys have demonstrated a link between religious beliefs and rejection of Darwinism, in the past⁷⁶ and in the present.⁷⁷ In the conclusion of their edited volume entitled *Evolution Education Around the Globe* (2018), Hasan Deniz and Lisa Borgerding took from all the contributions that “across the majorities of these countries, the acceptance of evolution and views of evolution teaching are related to the influence of religion.”⁷⁸ This paper is fully aware of the sensible relation between religion and Darwinism and it is not without reason that it was devoted to the religious dimension of the Darwinian experience. Nevertheless, the argument made here is that picturing the relation between religion and Darwinism as pure opposition is

⁷⁶ Ellegard, 1958, 359-360.

⁷⁷ Miller, Scott, Okamoto, 2006, 765-766.

⁷⁸ Deniz, Borgerding, 2018, 450.

misleading because it obliterates the numerous ways in which religious intellectuals combined their personal faith with their understanding of Darwinism.

The second argument formulated by our paper was elaborated through the comparative approach and can be seen as twofold. On the one hand, the comparison showed that the main difference between the Middle East and the Anglo-Saxon world was that Darwinism was framed as part of the question of the relation to the West in the Middle East and as part of the secularization of science in the Anglo-Saxon world. Related to this, the second idea we formulated was that by going beyond the political specificity of each region, there were a number of parallels that could be drawn regarding philosophical ideas and preoccupations voiced by religious thinkers of Darwinism. These similarities related to the intensity of the debate, the individuality of the experience of Darwinism, the association of Darwinism to the broader question of modernity and above all the common triple preoccupation raised by Darwinism concerning God, Man and Truth. In emphasizing the differences and the similarities in two different receptions of Darwinism, we sought to identify the contextual and the generalizable, in order to reflect on the question of the universal, which bears special significance on current discussions related to the universality of science. Perhaps further studies of the reception of Darwinism in other parts of the world could contribute in testing the universality of the aspects of the Darwinian experience that we identified as similar in the two regions.

One might want to ask what is the interest of studying the reception of Darwinism. Since we believe it to be the duty of the historian to continuously question the relevance of his studies, we can do the exercise and formulate three hypotheses. Firstly, understanding how Darwinism was received in the 19th century enables us to inscribe the current state of its acceptance in broader historical processes of the relation between a society and its legitimate methods of truth assessment. For instance, the imperial context in which Darwinism has emerged impacted its experience for non-Western populations until today, Darwinism being still accused of not being adapted to the cultural context.⁷⁹ This historical awareness can arguably enable us to take a step back on our own personal experience of Darwinism and thus attempt to reduce our own subjectivity. Secondly, adopting a historical comparative approach to analyze the reception of a scientific theory allows us to ask the question of the universal, at a time when globalizing and localizing forces are at great tension especially concerning science, accused by many as being Eurocentric. The comparison thus enables us to fight our potential biases. And thirdly, a historical approach of the reception of Darwinism provides us with a multiplicity of insightful experiences of the relation between the temporal and the metaphysical. And that is precisely where the study of the reception of Darwinism is so fascinating, for it shows that the questions that inhabited the thoughts of brilliant 19th century thinkers from Beirut, Princeton, Cairo or Shrewsbury are still occupying our minds in a similar way because they concern the very fundamentals of the human experience.

In conclusion, let us end this paper in the way we started it, that is with Darwin's own words on the relation between his theory and metaphysics. The following lines are no less ambiguous than our introductory quotation, but their admirable degree of humility is perhaps even more inspiring:

I own that I cannot see as plainly as others do, and as I should wish to do, evidence of design and beneficence on all sides of us. There seems to me too much misery in the world. I cannot persuade myself that a beneficent and 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, and especially the nature of man, and 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. I feel most deeply that the whole subject is too profound for the human intellect. A dog might as well speculate on the mind of Newton. Let each man hope and believe what he can.⁸⁰

⁷⁹ Deniz, Borgerding, 2018, 451.

⁸⁰ Letter of Charles Darwin to Asa Gray, May 22, 1860 (F. Darwin, 1887, 312).

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