

## **Darwinian Beauty<sup>1</sup>**

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**Abstract:** It is not always considered that the discussion about the objective or subjective nature of beauty occurred partly in natural history, within the framework of the Darwinian revolution. The approaches of many pre-Darwinian naturalists assumed the existence of absolute standards of beauty. This idea was a presupposition in some versions of the great chain of being and in the idea that beauty was an objective characteristic of creation that could explain the possession of many traits of organisms. In this

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paper I will show how Darwin explicitly confronted both views throughout his work.

*“Quæri fortasse à nonnullis potest,  
Quis Papilionum usus sit?  
Respondeo, Ad ornatum Universi,  
et ut hominibus spectaculo sint.”*  
(Ray et al. 1710, p. 109)

## 1. Introduction

Whether beauty is an objective characteristic of an entity or depends on the subjectivity of those who see it is a question that has been answered in different ways. Today we tend to consider that there are no objective standards of beauty, but the question has been discussed since the very origins of philosophy. For Plato, beauty was one of those eternal, perfect and immutable ideas that justified the aesthetic judgments of the few who were able to escape from the cave. For others, such as Protagoras, beauty was not an objective quality of things but depended on the eye that looks at them. In general, until the 18th century, beauty tended to be seen as an objective quality (Sartwell 2022). In contrast, the philosophers of empiricist orientation of the 18th century, such as Locke, Hume and Kant, tended to consider it a subjective property, although they differed in the detail of its treatment. My aim, in this paper, is to show that an important part of the struggle between these two positions took place within the framework of natural history.

As with the questions of universals and teleology, the originally philosophical discussion had a confrontation on the front lines of the Darwinian revolution. Partly influenced by the philosophers who discussed the question (Richards 2017, Chapter 4), Darwin took sides and defended the non-existence of absolute standards of beauty, not in an *a priori* way, with abstract arguments, but, handled it empirically, just

as he approached all the problems he worked on: avoiding general speculation and staying close to experience, he showed how his new approach allowed him to solve small problems. By the end of the Darwinian revolution, as happened with “planet” in the Copernican revolution, “beauty” will have changed its meaning. So too, the place of beauty in natural history.

My intention in this paper, based on the results of previous research that did not take beauty as a central theme in Darwin's work, is to present the different ways in which he approached the question in his different books. The pre-Darwinian conception of beauty held by many naturalists, where beauty was an intrinsic property of nature, and there were absolute standards of beauty that allowed reinforcing the idea of natural scale, were gradually being eroded by the Darwinian method.

Although Darwin never made it an explicit aim of any of his works to criticize the idea that there are objective standards of beauty, the defense that this is a central axis of his work is defended not on the basis of isolated quotes in which he defends this point, but rather in the analysis of how Darwin proposes an alternative vision in which a subjective and contingent conception of beauty plays a central role. This can be found in Darwin's various works on the function of flowers, in all his defenses of the importance of sexual selection by aesthetic preference, and in his theory of the origin of races. In the latter, as we shall see, the political side of the discussion of the role of beauty in natural history is shown in relation to the role of Darwin's anti-slavery ideology.

It can probably be argued that this is another aspect in which the Darwinian revolution went outside natural history and ended up affecting our worldview, but I will not try to defend this more general point in this paper but rather will limit myself to showing the central place that the reflection

on beauty had in the Darwinian work and the different strategies with which he dealt with the issue.

## **2. The chain of beauty being**

One of the most important obstacles to the understanding of some texts written by scientists and philosophers of the past consists in their assumption that it is possible to order the different domains of reality according to objective standards of perfection. The idea that circular motions are more perfect than others, fundamental to astronomy for several centuries, is incomprehensible to our eyes. This assumption, applied in a partial sense to geometric forms, was universalized to all types of existing entities. The affirmation that there is a scale on which every entity can be ordered according to its degree of perfection is one of the components, according to Arthur Lovejoy, of an idea, transversal to many philosophical positions: the great chain of being (Lovejoy 1936). This idea, which began as a statement about all entities existing in the present, was temporalized by evolutionary authors in the eighteenth century who thought that the ascent in the scale of being took place over time. This idea is embodied in the evolutionary conception of Lamarck and other philosophers and naturalists of the time (Caponi 2006; Lovejoy 1936).

The idea of the chain of being ended up vanishing within the framework of the Darwinian revolution. The possibility of aligning all organisms on the same scale simply does not make sense in the Darwinian world. On the other hand, regardless of the idea that evolution may or may not imply a certain kind of progress—to which we will return later—, or about the discussion of Darwin's position in this respect, it is quite clear that any possible measure of progress must be compatible, in both cases, with the fact that Darwinian

evolution is contingent and has no fixed goals. Finally, Darwin undermines the idea that there are objective standards of perfection. Although, as is often the case with revolutionary authors, Darwin uses previous language to communicate new ideas (often incompatible with such language), and it is possible to find constant affirmations about “superior animals” and “inferior animals”, there are no absolute ways of comparing different organisms in his framework. It is possible, of course, to determine the degree of optimality with which a certain trait fulfills a certain function or to compare the reproductive success of organisms of the same population, but in both cases, these are comparisons relative to a certain specific value that could not fulfill the function required for ordering on the scale of being.

Moreover, Darwin states it explicitly:

The problem whether organisation on the whole has advanced is in many ways excessively intricate. ...To attempt to compare members of distinct types in the scale of highness seems hopeless; who will decide whether a cuttle-fish be higher than a bee—that insect which the great Von Baer believed to be “in fact more highly organised than a fish, although upon another type”? (Darwin 1872, p. 308)

In his personal notebooks, of course, he is less kind to the idea of interspecific comparisons.

It is absurd to talk of one animal being higher than another. (Barrett et al. 1987 M74)  
People often talk of the wonderful event of intellectual man appearing. — the appearance of insects with other senses is more wonderful;

its mind more different probably, & introduction of man nothing compared to the first thinking being, although hard to draw line. (Barrett et al. 1987 M207)

But who with the face of the earth covered with the most beautiful savannahs and forests dare to say that intellectuality is only aim in this world. (Barrett et al. 1987 M252)

Although the idea of the Chain of being finally collapsed under its own development, as Lovejoy argues, the triumph of the Darwinian worldview must have played a fundamental role in the elimination of these ancient ideas, at least in the field of biology.

I am interested, however, in focusing on an aspect of the idea of the chain of being that is not usually considered and on which Darwin specifically focused. The idea that there exist, in addition to objective standards of perfection that allow us to compare organisms interspecifically, absolute standards of beauty.

The point is particularly interesting against the background of Darwin's anti-slavery positions (Desmond and Moore 2009, Ginnobili forthcoming). As Lovejoy points out, the cosmic order of the great chain of being allowed the establishment of orders in the human political microcosm. We may add that racist and slave literature was especially inclined to order races according to their perfection. And in this literature, special attention was paid to the gradations of the different races concerning beauty (Desmond and Moore 2009, p. 281).

*Types of Mankind*, for example, is a famous text at the time in which comparison between races in terms of absolute standards of beauty is ubiquitous:

If we take a profile view of the European face, and sketch its outlines, we shall find that it can be divided by horizontal lines into four equal parts: the first enclosing the crown of the head; the second, the forehead; the third, the nose and ears; and the fourth, the lips and chin. In the antique statues, the perfection of the beauty of which is justly admired, these four parts are exactly equal; in living individuals slight deviations occur, but in proportion as the formation of the face is more handsome and perfect, these sections approach a mathematical equality. The vertical length of the head to the cheeks is measured by three of these equal parts. The larger the face and smaller the head, the more unhandsome they become. It is especially in this deviation from the normal measurement that the human features become coarse and ugly...In a comparison of the Negro head with this ideal, we get the surprising result that the rule with the former is not the equality of the four parts, but a regular increase in length from above downwards. (Nott and Gliddon 1855, pp. 415–416)

In the text of Charles White the idea of the great chain of being with beautiful European at the top is explicit:

Ascending the line of gradation, we come at last to the white European; who being most removed from the brute creation, may, on that account, be considered as the most beautiful of the human race. No one will doubt his superiority in intellectual powers; and I believe

it will be found that his capacity is naturally superior also to that of every other man. (White 1799, pp. 134–135)

Darwin confronted in this aspect not only with texts that work centrally on the subject of races. For example, one of the sources Darwin discusses in his book on the expression of emotions argues:

Nevertheless, as in the order of nature the most intelligent social being is also the most intelligible, this faculty of blushing and paleness which distinguishes man is a natural sign of his great perfection. And from this point of view the white man will seem to us capable of producing greater beauty than the black man, in whom these splendors of intelligence and life are, if I dare say so, veiled and obscured. (Gratiolet 1865, p. 94)

### 3. Beautifying creation as a function

The idea of absolute standards of beauty was found in much of the literature on race, but it also played a fundamental role in other texts that greatly influenced Darwin, and which Darwin confronts, for example, those of natural theology. In this case, the point is not necessarily related to the idea of the chain of being, but to the assumption that the traits of organisms, and also the organisms themselves, play a role in the plan of creation. The fundamental notion in question is that of *natural economy*. The idea that organisms exist for the maintenance of a system and not for themselves (Caponi 2011; 2022; Ginnobili 2014; 2022; Limoges 1972). Thus, the function of fruits, according



to William Paley, is to feed animals (Paley 1809, p. 351), or the function of certain insects, according to William Kirby and William Spence, is to eliminate excrement of nature (Kirby and Spence 1846, p. 181).

While this idea of natural economy is common to many Pre-Darwinian naturalists (Caponi 2011, Chapter 1), it is interesting to note that one of the functions that traits of organisms and organisms themselves might have within the framework of natural theology was the beautification of creation.

Who then shall dare maintain, unless he has the hardihood to deny that God created them, that the study of insects and their ways is trifling or unprofitable? Were they not arrayed in all their beauty, and surrounded with all their wonders, and made so instrumental (as I shall hereafter prove them to be) to our welfare, that we might glorify and praise him for them? Why were insects made attractive, if not, as Ray well expresses it, that they might ornament the universe and be delightful objects of contemplation to man? And is it not clear, as Dr. Paley has observed, that the production of beauty was as much in the Creator's mind in painting a butterfly or in studding a beetle, as in giving symmetry to the human frame, or graceful curves to its muscular covering? (Kirby and Spence 1846, p. 50)

This is not just a grandiloquent statement that natural theologians made in the introductions to their books, but this idea of beauty was part of the explanatory patterns to which they appealed to explain the possession of traits by organisms, and the very existence of organisms (Stowell

2017). The function of flowers (Paley 1809, pp. 199–200), the plumage of birds and the color of the iris of the eye (Paley 1809, pp. 198–199) is to beautify the creation.

In plants, especially in the flowers of plants, the principle of beauty holds a still more considerable place in their composition; is still more confessed than in animals. Why, for one instance out of a thousand, does the corolla of the tulip, when advanced to its size and maturity, change its colour? ... Is it not more probable, that this property, which is independent, as it should seem, of the wants and utilities of the plant, was calculated for beauty, intended for display? (Paley 1809, pp. 199–200)

Sometimes beauty is presented as an end in itself, sometimes as a way to satisfy humans, since in this vision we are the center of creation (Paley 1809, p. 202).

The Darwinian proposal, as we shall see, implied substantially changing both of the above-mentioned points concerning the existence of objective standards of beauty. He challenged the idea that such standards made it possible to order different organisms on a scale and the idea that these could be appealed to as objectives that traits of organisms and organisms could meet. We will begin by addressing the second issue.

#### **4. Darwinian functional biology**

Darwinism embraces the two traditions that had been at odds in previous centuries: formalism—which emphasized the common structure of different organisms in order to

make appropriate classifications—and functionalism—which emphasized the function of the different traits of organisms (Ochoa & Barahona 2009, Russell 1916). Formalism will be subsumed by Darwin under his theory of common ancestry, and functionalism under his theory of natural selection. The acquisition of functional traits (i.e. those traits of organisms that solve specific environmental problems with a high degree of efficiency), which for natural theologians was a symptom of intelligent design, will be explained by Darwin, mainly by appealing to the theory of natural selection. This last statement, however, requires an important qualification. Darwin not only changed the explanation of functional attribution, but he also changed functional attribution itself. As Gustavo Caponi points out, functional traits were conceived, within the framework of Darwinism, in a new way (Caponi 2011, pp. 14–18). Natural selection only spreads traits that benefit the organism that possesses them, or in any case, the community or group to which the organism belongs, but it could never explain the *Origin* of traits of one species that exclusively benefit another species. The same can be said of other evolutionary mechanisms accepted by Darwin, use and disuse, plus inheritance of acquired characters, which could also jointly explain the acquisition of certain adaptations but would never develop traits for the exclusive benefit of another species.

This is not an assertion that is the product of historiographic elaboration, but is explicitly affirmed by Darwin:

Natural selection cannot possibly produce any modification in any one species exclusively for the good of another species; though throughout nature one species incessantly takes advantage of, and profits by, the structure of another. But natural selection can and does

often produce structures for the direct injury of other species, as we see in the fang of the adder, and in the ovipositor of the ichneumon, by which its eggs are deposited in the living bodies of other insects. If it could be proved that any part of the structure of any one species had been formed for the exclusive good of another species, it would annihilate my theory, for such could not have been produced through natural selection. (Darwin 1859, p. 200)

Not all functional attributions of natural theology were strange in this sense. Physiological functional attributions, for example, did not have these characteristics of being for the benefit of other species or of the natural economy (see e.g. Roget 1834). On the other hand, Paley himself makes functional attributions similar to those made by Darwin, of a more ecological character. For example, the lights of fireflies have the function of attracting mating partners (Paley 1809, p. 336) and the structures that allow seeds to glide have the function of enabling the plant to disperse its seeds (Paley, 1809, p. 355).

If Darwin wanted to convince the scientific community of the explanatory capacity of the theory of natural selection, he had to reformulate the attributions that were incompatible with it (Ginnobili 2014; 2022). One of his strategies consisted in correcting previous functional attributions, subsuming them under other known targets. Fruits, for example, would no longer serve the purpose of feeding animals, but that of dispersing the seeds (Darwin 1909, p. 92).

Of course, just as natural selection could not target altruistic traits for the exclusive benefit of other species, neither could it account for that stranger form of altruism that consists in beautifying the world.

The foregoing remarks lead me to say a few words on the protest lately made by some naturalists, against the utilitarian doctrine that every detail of structure has been produced for the good of its possessor. They believe that very many structures have been created for beauty in the eyes of man, or for mere variety. This doctrine, if true, would be absolutely fatal to my theory. (Darwin 1859, p. 199)

Although Darwin is also explicit in this regard, it is curious that when discussing the objectives of his posterior works to *Origin*, it is often overlooked that in such texts he corrects the functional attribution, incompatible with natural selection, which explains different traits of organisms from the role of beautifying creation. This was one (not the only one) of the objectives of several of these works. Particularly those in which he deals with the function of flowers and sexual selection.

## 5. The function of beautiful orchid flowers

After the *Origin* Darwin published his book about orchids. In the literature on Darwin, the purpose of this publication is discussed. It is interesting to see this book from the perspective I am pointing out. One of its objectives is to determine what the function of flowers is. In this case—unlike the case of fruits, where Darwin subsumes them under a function that natural theologians already knew, that of dispersing seeds—Darwin proposes a new objective that the traits of organisms can pursue: to avoid endogamy. He had learned from breeders that endogamic reproduction produced varieties increasingly weaker, so he devoted a great

extent of his time and writings to show that many of the traits of flowers have the function of facilitating crossed fertilization (Darwin 1861, 1862, 1876, 1877).

Darwin explicitly contrasts his explanation with that which always serves as a counterpoint.

Some naturalists believe that numberless structures have been created for the sake of mere variety and beauty,—much as a workman would make a set of different patterns. I, for one, have often and often doubted whether this or that detail of structure could be of any service; yet, if of no good, these structures could not have been modelled by the natural preservation of useful variations (Darwin 1862, p. 352).

This also sheds new light on an aspect that was left out in the discussion of Darwin's commentary on Asa Gray in a letter: “no one else has perceived that my chief interest in my orchid book has been that it was a 'flank movement’” (Darwin to Asa Gray, 23 July 1862). This book seems, from this point of view, to be subordinated to the general objective of convincing the scientific community of the theses held in the *Origin*. Many authors deal with different aspects of this issue (Beatty 2006; Ghiselin 1969, Chapter VI; Gould 1980, Chapter I; Hoquet 2010; Lennox 1993). I do not think that these different interpretations should be seen as competing. Rather, the heterogeneity of readings of this phrase (derived from the different interpretations of the role of the orchid text in Darwin's body of work) shows the complexity of Darwinian thought. Based on the approach presented here, one aspect can be added that has not been taken into account. The flank movement can be interpreted also as Darwin's attempt to defend his evolutionary

viewpoint by attacking not from the front (which he had done in *Origin*) but, changing the underlying functional biology accepted until then. He did so in one specific case (the function of flowers) by presenting overwhelming evidence throughout many of his writings, showing the direction in which functional biology should develop from there.

This is the first sense in which beauty begins to be removed as a target to which explanatory appeal can be made in functional attribution. In the Darwinian way, which never appeals to general arguments, but shows alternative detailed ways to account in a novel way for target phenomena. The beauty of the floral structures has the function of attracting insects to pollinate other flowers, favoring cross-fertilization. In some cases (definitely not always) the colors and perfumes used for this purpose seem beautiful to us too, but this is a side effect of the purpose of avoiding inbreeding.

## **6. The function of the beautiful peacock feathers**

Abstract presentations of the theory of natural selection fail to show the diversity of ways in which it is applied by Darwin and in subsequent evolutionary biology. The possession of functional traits can affect the reproductive success of organisms not only by affecting longevity or survival (Endler 1986, 1992; Ginnobili 2010; 2016; 2018). For example, they may affect reproductive success by enhancing seed dispersal, fecundity, etc. Among these, one of Darwin's most interesting proposals has to do with the ability to modify reproductive success through differences in

a population when it comes to obtaining reproductive mates: sexual selection.<sup>2</sup>

There are two types of sexual selection. In the first type, the competition is between organisms of the same sex and involves some kind of interaction between them in which the winners access the mate. In the second type, there is competition, but to attract organisms of the other sex. For Darwin, this type of competition assumes an aesthetic criterion and a more or less deliberate choice on the part of the other sex.<sup>3</sup> In this paper, we are particularly interested in this second type of sexual selection, because it is specifically related to the origin of beauty in animals. Darwin introduces sexual selection in the *Origin*. But he presents it briefly. To give plausibility to this mechanism he appeals to artificial selection.

I cannot here enter on the details necessary to support this view; but if man can in a short time give elegant carriage and beauty to his bantams, according to his standard of beauty, I can see no good reason to doubt that female birds, by selecting, during thousands of generations, the most melodious or beautiful males, according to their standard of beauty, might produce a marked effect. (Darwin 1859, p. 89)

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<sup>2</sup> Darwin sometimes speaks of natural selection as a mechanism that includes sexual and non-sexual selection, sometimes he just uses “natural selection” as non-sexual selection (Ginnobili 2011; 2018). Here I will stick to the latter usage which is more common.

<sup>3</sup> Gayon (2010, p. 137) argues that there are actually three types of sexual selection, but here I will stick to the more usual distinction into two types.



In *Descent*, the mechanism is presented in detail. About half of the book is devoted to sexual selection in non-human animals (Darwin 1871). He proposes sexual selection to explain the secondary sexual traits of organisms, which are traits indirectly related to the act of reproduction. His characterization of “secondary character,” as he points out, is vague and quite unclear (Darwin 1871, pp. 253–254), but it is simply a first approximation. The long part devoted to exemplary applications of the notions involved is those that, as we saw in the previous part, provide the empirical semantics of all the concepts involved.

It is the appeal to sexual selection based on aesthetic criteria when choosing mates that accounts for many of the beautiful and useless features that in the previous framework had the function of beautifying creation in itself or before our eyes (Richards 2017, p. xxvi). These would have arisen through the selective pressure generated by the aesthetic criteria of the opposite sex when choosing mates. It could be argued that, while this implies replacing beauty *per se* as a possible function that traits might have, the explanation of beauty through sexual selection does not allow us to defend the idea that there are no objective standards of beauty (which is one of the characteristics I want to attribute to Darwinism, or Darwin specifically). Moreover, it seems that the aesthetic criteria among female peacocks coincide with ours. And one possible explanation of this point is that, precisely, such aesthetic criteria are shared because they are objective.

Darwin makes the point explicitly:

On the whole, birds appear to be the most æsthetic of all animals, excepting of course man, and they have nearly the same taste for the beautiful as we have. This is shewn by our enjoyment of the singing of birds, and by our

women, both civilised and savage, decking their heads with borrowed plumes, and using gems which are hardly more brilliantly coloured than the naked skin and wattles of certain birds. (Darwin 1871, vol. II, p.39)

But as we will see in the next section, this coincidence—although significant, because it shows that our sense of beauty is shared with non-human animals, and may then have arisen evolutionarily (Darwin 1871, vol. I, pp. 63-65)—can only be contingent. For, secondary sexual characteristics shaped by aesthetic criteria do not always appear beautiful to us. In fact, Darwin insists on characterizing aesthetic preference as “capricious” (Darwin 1871, vol. I, p. 230) or, even more interestingly, pursuing “beautiful for beauty’s sake” (Darwin 1872, p. 161). In fact, according to Darwin, aesthetic preferences require developed cognitive abilities. High mental capacities and developed senses are necessary “to appreciate each other's beauty or other attractions” (Darwin 1871, vol. I, p. 381)—this is interesting because he applies this type of selection even to insects. The reason he holds this is that he needs the appreciation of beauty to be fluctuating and arbitrary (Darwin 1871, vol. II, p. 230) precisely because that allows him to explain exaggerated and extravagant secondary sexual characteristics disconnected from utility (Cronin 1991, pp. 179–180; Gayon 2010, pp. 138–141; Prum 2012, 2017, Chapter 1).

The treatment of beauty as a secondary sexual character that emerges contingently in the world, due to arbitrary and fluctuating aesthetic criteria, also allows us to counteract the worldview that we characterized earlier as the chain of being of beauty, which was appealed to, as we saw, in the texts dealing with human races, as we will see in the next section.

## 7. The origin of human races

It is in the discussion of the origin of human races that the Darwinian discussion of the role of beauty in natural history shows its most political edges. As Adrian Desmond and James Moore state:

In reacting to the racist books Darwin now gained a greater insight into the role that ‘beauty’ played in leading the races along their divergent paths. ‘Beauty’ was integral to the rival literature. *Types of Mankind* was a hymn to the ‘manly beauty’ of noble Caucasian faces, ‘the perfection of the beauty of which is justly admired’. It praised the ‘faultless’ phrenological vault, whether in ancient Greece or modern Britain, whose Apollo features contrasted with the ‘coarse and ugly’ Negro physiognomy. (Desmond and Moore 2009, p. 281)

It has been pointed out several times, how strange it is that Darwin's treatise on sexual selection appears as a part of *Descent* (Dawkins 2003, p. 61; Desmond and Moore 2009, p. xvii; Eiseley 1972, p. 1; Ruse 1996, p. 144). The explicit reason for such inclusion is that for Darwin the racial differences, which according to him have no survival value and cannot have arisen from the direct influence of the environment, are secondary sexual characteristics. That is, they arose because of the aesthetic preferences of males when choosing females. This explanation is rather peculiar, because racial differences are not dimorphic, and because in this specific case it is the males who choose (usually, with some exceptions, according to Darwin, it is the females who choose) (Millstein 2012). But we are not interested here in

getting into all the specific details of the explanation, but only in the role of beauty in the explanation.

Darwin's explanation of the origin of races appeals to the fact that different human populations varied in their standards of beauty, and such standards ended up being imprinted on their bodies. In our ancestors, Darwin thinks, tribal chiefs would have been the ones with the power of choice, and they would have been the ones who generated the selective pressure by choosing mates with the traits they preferred. Since aesthetic preferences are fluctuating and contingent, standards need not necessarily coincide in different unconnected populations, so they ended up diverging in these ornamental and superficial characteristics in which human races differ.

Let us suppose the members of a tribe, in which some form of marriage was practised, to spread over an unoccupied continent; they would soon split up into distinct hordes, which would be separated from each other by various barriers, and still more effectually by the incessant wars between all barbarous nations. The hordes would thus be exposed to slightly different conditions and habits of life, and would sooner or later come to differ in some small degree. As soon as this occurred, each isolated tribe would form for itself a slightly different standard of beauty; and then unconscious selection would come into action through the more powerful and leading savages preferring certain women to others. Thus the differences between the tribes, at first very slight, would gradually and inevitably be increased to a greater and greater degree. (Darwin 1871, vol. II, pp. 370-371)

The explanation of the origin of races, artificial selection and natural selection are intrinsically related in the context of the discovery of Darwinian ideas (Alter 2007; Cronin 1991), and are related to the story of how Darwin was elaborating his ideas, specifically about beauty (Richards 2017). This story is interesting in its own right. But here I will only focus on the role of beauty in the final explanation that Darwin ends up publishing in *Descent*. Particularly, I will focus on the idea that there are no objective standards of beauty, and that there are not even shared standards of beauty among humans, as part of the explanation of the origin of races.

In *Descent* Darwin provides ample evidence that standards of beauty in mate choice differ between different races (Darwin 1871, vol. II, pp. 338-354). From the evidence gathered he establishes that:

No doubt the perceptive powers of man and the lower animals are so constituted that brilliant colours and certain forms, as well as harmonious and rhythmical sounds, give pleasure and are called beautiful; but why this should be so, we know no more than why certain bodily sensations are agreeable and others disagreeable. It is certainly not true that there is in the mind of man any universal standard of beauty with respect to the human body. (Darwin 1871, vol. II, p. 353)

In *Origin* the inference is somewhat stronger:

With respect to the belief that organic beings have been created beautiful for the delight of man,—a belief which it has been pronounced is subversive of my whole theory,—I may first remark that the sense of beauty obviously

depends on the nature of the mind, irrespective of any real quality in the admired object; and that the idea of what is beautiful, is not innate or unalterable. We see this, for instance, in the men of different races admiring an entirely different standard of beauty in their women. (Darwin 1872, p. 160)

Of course, this subjectivist claim about beauty is stronger than Darwin needs for the factual explanations they propose to work. For example, it is not necessary to claim that there are no absolute standards of beauty for the explanation of race to work. It is enough that the different original populations have had different standards of beauty among them (whether or not they differed from absolute standards of beauty). Perhaps Darwin was interested in eroding the opposite approach (as we saw Desmond and Moore argue in an earlier quote), the one that allows interspecific and intraspecific comparisons and scales of perfection and beauty (Ginnobili forthcoming).

## **8. Progress**

Perhaps at this point, it is necessary to make certain clarifications on the limits of what has been proposed. I have tried to show that for Darwin there are neither objective standards of perfection nor beauty, and I have tried to show the sense in which Darwin turns against the idea of beauty of some of his predecessors, defending in the framework of natural history the idea, which had been defended by some philosophers, that beauty is subjective. However, Darwin's texts exhibit different kinds of tension in this respect as well. In some cases because he has to use old language to present new ideas, sometimes because his thinking exhibits

unresolved tensions regarding different issues. Moreover, throughout his work, Darwin does not have definite positions on all the subjects he deals with. Regarding these issues, it should be noted that Darwin elaborated and reformulated his ideas and, in some cases, gained the confidence to sustain them in published texts over time (see for example, Ospovat 1981, Chapter 9).

For example, Darwin uses the expression “lower animals” and “inferior animals”, while defending that all races have the same mental capacities he does not hesitate to distinguish between *civilized* and *savage*, and as far as we are concerned, he makes allusions to the fact that there are more refined tastes than others. E.g:

When, however, it is said that the lower animals have a sense of beauty, it must not be supposed that such sense is comparable with that of a cultivated man, with his multiform and complex associated ideas. A more just comparison would be between the taste for the beautiful in animals, and that in the lowest savages, who admire and deck themselves with any brilliant, glittering, or curious object. (Darwin 1874, p. 211)

These claims seem to contradict his view of beauty as subjective (Richards 2017, p. 105). And these tensions are what led to so many disagreements among Darwin scholars regarding the issues involved—particularly concerning the idea of progress (Ospovat 1981, Chapter 9; Ruse 1996). Even though discussing the notion of progress in Darwin exceeds the limits of this paper, I need to point out that the comparative claims about beauty in Darwin cannot be seen as evidence against what is defended in this paper. On this, I would like to say three things.

First, we should separate the idea of social progress from the idea that there is progress in evolution. It is possible to reject the former and accept the latter. In general, almost any Darwinist today would concede that there is progress, e.g., in science (even if it is non-cumulative and not toward truth) and would doubt that one can speak of progress in evolution.

The second thing I would like to clarify is that it is necessary to separate the idea that there are no absolute standards of perfection or beauty and the idea that there is no predetermined path in evolution, from the idea that there is progress. It is possible to argue that there is progress in the absence of both. Curiously, Thomas Kuhn tries to defend an idea of progress in science in the absence of objective standards and pre-established transcendent goals and rightly invites us to think about it in a Darwinian way (Kuhn 1962).

In this sense, Darwin often qualifies his claims about progress by relativizing them to some kind of standard that need not be objective. For example:

If we take as the standard of high organisation, the amount of differentiation and specialisation of the several organs in each being when adult (and this will include the advancement of the brain for intellectual purposes), natural selection clearly leads towards this standard: for all physiologists admit that the specialisation of organs, inasmuch as in this state they perform their functions better, is an advantage to each being; and hence the accumulation of variations tending towards specialisation is within the scope of natural selection. (Darwin 1872, p. 98)

And the same the same can be said with respect to comparative statements about the refinement of different



tastes. They may be paternalistic, racist, Eurocentrist, and gendered (Richards 2017, p. 125) but they do not necessarily imply a reference to absolute standards of beauty or perfection, which is my point.

The third point I would like to make has to do with the value of appealing to text fragments when discussing Darwin's positions. As I said, Darwinian texts, although extremely clear, often manifest contradictions, because of the nature of the conceptual effort Darwin is making. That leads one to justify almost any position by selecting different parts. The point I am trying to defend is not based on textual quotations from Darwin's texts. Darwin's notion of subjective beauty is not based on isolated statements made by Darwin but is embedded in his explanations of the phenomena he deals with and is integrated into his framework. His attempt to provide alternatives to beauty as a function that traits of organisms can point to is transversal to all his work. The idea that there are no standards of beauty shared by all humans is essential to his explanation of the origin of races, to which he dedicated, not a small paragraph, but half of *Descent*. Simply put, although the idea of biological progress is debatable, the notion of absolute perfection and beauty in the Darwinian world is meaningless.

## 9. Conclusions

The Darwinian revolution is not a classical subject in philosophy courses and Darwin is not normally included in the philosophical canon. It can be argued, however, that many of his ideas were fundamental in establishing our current positions on different central and traditional issues in philosophy. Many of the tasks that Pre-Darwinian naturalists justified transcendently were redefined within the framework of Darwinism. It is usually recognized that

this is the case concerning functional attribution, essentialism and systematics. In this paper, I have tried to show that the discussion of beauty should be included in this perspective. I have tried to show that a theme that is transversal to all Darwinian work is that of beauty. A relevant chapter in the discussion about the objective or subjective nature of beauty occurred in natural history in his texts. For Darwin redefined the place that beauty had in the texts of many of the previous natural historians. This implies, then, both a sign of Darwin's importance in dealing with certain traditional philosophical themes and, on the other hand, a key to the interpretation of Darwin's texts. For, the theme of beauty is not a minor issue to which Darwin devoted himself, but one that occupied a large part of his work. Thus, his writings on the function of flowers, his writings on sexual selection and his theories on the origin of human races should be read with this theme in mind.

It is interesting to note that the rejection of the idea of the existence of absolute standards of beauty does not imply that beauty does not play a role in Darwinian work. As we have seen, it occupies a fundamental role sometimes in his *explanans*, as in the case of the theory of the origin of human races, sometimes as the *explanandum* of his theories, when he tries to explain how beauty originated in certain traits or how the aesthetic sense evolved in humans (Stowell 2017; Tipton 1999).

I suppose that some will be ready to concede the importance of the theme of beauty in Darwinian texts, but not so much the importance of Darwin in the discussion of beauty in general, and its consequent philosophical relevance. For these changes would have occurred only within the framework of natural history. To discuss whether or not these points were in fact influential on current philosophy and worldview is beyond the scope of this paper. But it is hard to imagine how it could be thought that they

were not. The new vision of evolution—contingent, without pre-established direction, without transcendent essences or pre-established roles, without presupposed standards of absolute perfection and beauty—and the consequent revision of the task of the natural historian (the scientist)—whose object ceases to be the transcendent world from its imperfect appearance in the sensible world, to become the world itself—certainly occurred within the framework of natural history. But natural history is not a science peripheral to our political interests. By discussing what we are, what is our nature and that of our society, it influenced (not always in a sense that we like) much of later history and continues to be in the focus of discussion in the present. The omission of Darwin from philosophy curricula, and the way he participated in classical philosophical discussions, such as the one we are concerned with in this paper, is, to say the least, curious.

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