

## *Darwin's Doctrine of Species and Theism*

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In the past two decades, there has been a renewed interest in Darwin's theory of evolution by natural selection.<sup>1</sup> Many of the recent works on Darwin have focused on either defending Darwinism with new and current scientific information, or showing the religious and moral implications of Darwin's evolutionary theory. This paper will deviate from these themes by focusing on Darwin's *doctrine of species* and its consequences on philosophical concepts central to theism. But haven't these relations already been explored? In this paper, I argue that the relationship between Darwin's doctrine of species and related philosophical and theistic concepts has not been fully explored. Until recently, philosophers have paid little attention to Darwin's theory of evolution. Rachel's assessment is this: "If we examine the most influential works of philosophy written in the twentieth century, we find few references to Darwin."<sup>2</sup> He continues, "The religious implications of Darwinism are often discussed. [But] Curiously, philosophers have shown little interest in such questions."<sup>3</sup> In this investigation I will offer an interpretation of Darwin's idea of species that, when pushed to its logical consequences, presents a view that is significantly unique and different from the traditional views, foundational for his theory of evolution, and significant for a broad spectrum of related philosophical and theistic concepts.

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<sup>1</sup> Three major works that have been written in the last few decades are: Richard Dawkins', *The Blind Watchmaker: Why The Evidence of Evolution Reveals A Universe without Design*, (W.W. Norton & Company, 1986); Daniel Dennett's, *Darwin's Dangerous Ideas*, (Touchstone, 1995); and James Rachels, *Created From Animals: The Moral Implications of Darwinism*, (Oxford University Press, 1990).

<sup>2</sup> James Rachel, *Created From Animals*. P. 1.

<sup>3</sup> James Rachel, *Created From Animals*. P. 1.

There are at least two reasons for the lack of philosophical research of Darwin's doctrine of species. First, the little philosophical attention Darwin has received has primarily been devoted to the religious implications of his evolutionary theory. Second, while Darwinism has been a moving influence on central philosophical concepts, doctrines, and arguments, such as essence, property, and the teleological argument, the logical connections between Darwin's doctrine of species and related philosophical and theistic concepts have not been addressed in a systematic manner. In this paper, I will carry-out such a systematic inquiry. First let us look at the relationship between the term "species" in the empirical sciences and in philosophy?

### ***1. Species in the Empirical Sciences, Philosophy, and Theology***

The term "species" is most commonly used within the realm of the empirical sciences. Nevertheless, if we set our gaze at the inception of scientific inquiry and reflect on the writings of Aristotle, we find that this term was used in an array of overlapping disciplines. Moreover, the use of the term "species" permeates philosophical writings during the middle ages. For instance, we can find extensive use of the term "species" in the works of most medieval theologians (e.g. Peter Abelard, St. Thomas Aquinas, Duns Scotus). The term "species", therefore, has been as connected with the empirical sciences as with philosophy and theology. There were obvious reasons for the expansive use of this term in Ancient Greece and the Medieval Ages. For one thing, the sharp distinction between the empirical sciences, philosophy, and theology were not yet well developed. For instance, Aristotle would probably have considered himself as much a naturalist, like Darwin, as a philosopher. The term species, then, was very much a part of scientific

and philosophical discourse and could easily cross, univocally, from the empirical sciences over to philosophy or theology.

However, specialization in the sciences, especially after the 16<sup>th</sup> century, led to the branching of the general sciences to specialized sciences, with clearer and more delineated boundaries. Even though the interdisciplinary character of many scientific terms, such as species, was lost, their intra-disciplinary character remained. For instance, the vestige of the medieval term “species” remains in contemporary circles of philosophical and theological discourse. The increased specialization in the sciences was accompanied by a decrease in interdisciplinary research. The advantage of focusing on a microcosmic scientific problem is the deep scientific understanding that can be acquired. The disadvantage of this myopic approach to scientific inquiry is that it can limit the sharing of information, giving rise to a severe lack of intercommunication between disciplines, slowing down the solutions to macrocosmic scientific-philosophical problems. A good example of this lack of communication between the sciences is the progress of Darwin’s doctrine of species and the little effect it has had in some areas of philosophical discourse.<sup>4</sup> I hope to remedy, in part, this ill effect of specialization; I hope to introduce Darwin’s doctrine of species as an innovative formula through which many old and new philosophical problems may be reexamined.

## ***2. Darwin’s Doctrine of Species***

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<sup>4</sup> This criticism cannot be applied uniformly across all philosophical schools or systems. It seems to apply to some schools of thought more than others and to certain philosophical discourses more than others. It can be applied, for instances, to Medieval Philosophical schools of thought that do not modify their terminology to adapt them to new and changing scientific discoveries. It cannot be applied to some versions of American Pragmatist, which have absorbed the central tenets of evolution into the main philosophical structure.

Not all theories of evolution are the same and not all have the same implications. One of the essential characteristics of Darwin's theory of evolution is his *doctrine of species*, a doctrine not necessarily implied by all theories of evolution, nor accepted by all evolutionists. Therefore, even though many philosophers accept the general idea of evolution, they may not accept Darwin's doctrine of species. What is special about Darwin's doctrine of species? What implications does it have for philosophical notions, such as species and essence? What implications does it have for more general views, such as theism? These questions have never been addressed. James Rachel blames the lack of philosophical interest and discussion of these questions on the common belief held by a majority of philosophers that Darwin's theory is not related to philosophy. He explains:

The proverbial 'man in the street' might believe that there are big philosophical lessons to be learned from Darwin –or big threats posed by Darwin – but by and large academics have not agreed. ... If we examine most influential works of philosophy written in the twentieth century, we find few references to Darwin. His theory is discussed, of course, in works devoted narrowly to the philosophy of science. But in philosophical works of more general interest, and particularly in books about ethics, it is largely ignored. When the subject is broached, it is usually to explain that Darwinism does not have some implication it is popularly thought to have. The philosophers seem to agree with Wittgenstein's assessment: 'The Darwinian' theory', said Wittgenstein, 'has no more to do with philosophy than any other hypothesis of natural science.'<sup>5</sup>

Other factors that have led to this neglect are that that not enough philosophers have studied Darwin closely, and when they do, the doctrine of species remains in the shadows of his theory of evolution. Another reason is that his view of the concept of species has not been pushed to its logical consequences.

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<sup>5</sup> James Rachel, *Created From Animals*, pp. 1-2

There is evidence that suggests that Darwin believed that there was some real conception of species. To begin with, the title of his first major work on evolution is called the *The Origin of Species*. In this work, Darwin realizes that arriving at a definition of species is difficult. However, he says: "Nor shall I here discuss the various definitions which have been given of the term [species]. No one definition has yet satisfied all naturalists; yet every naturalist knows vaguely what he means when he speaks of species."<sup>6</sup> This seems to indicate that Darwin believed that the term species did have a meaningful connotation, albeit vague, and a relatively objective denotation. He goes on to use the term, without hesitation, almost on every page of *The Origin of Species*. If Darwin's view is that the term "species" has an objective referent and a meaningful connotation, as the foregoing evidence seems to indicate, then it may be expected that the conception of species I intend to attribute to him in this paper is simply a different one from any proportioned by the philosophical tradition hitherto. This prediction would be incorrect. Instead, my argument is not that Darwin revolutionized the conception of species, but rather that he abolished it altogether!

Even though Darwin acknowledges that scientists and naturalists have some familiar and even common conception of species, his view is that this vague conception has no real anchor in the external world. In other words, for Darwin, there is no set of objects in the universe that is truly determined by the word "species." But, if Darwin grants that the word has a common and shared meaning among naturalists, then how can I attribute to him the view that the term is meaningless? If he himself uses the term

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<sup>6</sup> Charles Darwin, *The Origin of Species* (Random House Value Publishing, Inc., 1979) p. 101.

numerously and in substantial ways throughout the text, how can I argue that he abolished the term?

To understand Darwin's meaning (or meaninglessness) of the notion of species, we need to first understand his view of "organic beings in a state of nature."<sup>7</sup> One way to arrive at Darwin's view of species is to begin with a non-evolutionary theistic view, which lies at the other end of the spectrum. We can then shave off the significant layers of this view, which Darwin rejects, by analyzing an evolutionary theistic view of species. Finally, we can then analyze Darwin's view of species by comparing it to the evolutionary theistic view.

### ***2.1 Non-evolutionary Theistic view of Species or Instantaneous Creationism***

The non-evolutionary theistic view, the one prevalent in the 1844 when Darwin first wrote (not published until 1859) his idea of evolution by natural selection, begins with the claim that at some point in time God created the world. This view has also been called "instantaneous creation"<sup>8</sup>. Part of his creation included a variety of non-living things, such as rocks, minerals, elements, etc. God also created a variety of living things, such as various kinds of plants, horses, rabbits, humans, etc. The non-evolutionary theistic view claims that God created, all at once, a fixed number of species of living things. Each species shares one or more essential properties that provide the qualities relevant for belonging to the species in question. These species-making properties are regarded as the essence of individuals within a species. All essences

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<sup>7</sup> For his discussion on this topic see Chapter II "Variation under Nature" of the *Origin of Species*.

<sup>8</sup> See Richard Dawkins, *The Blind Watchmaker*. pp. 316.

originate from the divine mind, which holds them in contemplation in a mysterious eternal state, analogous to the state of thought.

Since the essences of species are considered eternal, their essential properties belong permanently to the species. Thus, if  $x$  is the essential property of species  $A$ , then all individual members of  $A$  that exist necessarily have property  $x$ . This relationship between  $A$  and its essential property  $x$  is a necessary relationship through eternity, grounded in the Divine mind. And even though there could be some very subtle variations among individuals of the same species, it is inconceivable for a species to evolve into another species, or change its essential properties. Instead, there are only a fixed number of possible species which are *predetermined* by the essences that are in the Divine mind. This non-evolutionary theistic conception of creation and the universe is founded on the idea that all individuals within a species share a common essence that does not change. If essences do not change, then the number of possible species in nature can not change, so that the number of possible species at creation is the same as in 1859 and in 2005. Finally, according to this view, there are real essential properties that individuate and distinguish one species from another. These properties are not only real they are eternal and grounded in God's mind.

## ***2.2 Evolutionary Theistic View of Species or Guided Evolution***

Few theists hold the latter view today, except possibly some factions of fundamental Christians. Many theists, who view evolution and creation as compatible, have a more progressive understanding of the universe, one that takes into account and

reconciles scientific facts and theories with religious belief. This view has been referred to by various names: “evolutionary theism” or “compatibilists” or “guide evolution.”

An evolutionary theistic view reconciles three central theses: (1) that God created the universes and everything in it; (2) that the universe is unfolding according to God’s plan; and (3) that species have evolved. Evolutionary theists accept the central Darwinian thesis that the currently existing species have evolved from other species. However, it rejects, in part or completely, Darwin’s theory of natural selection as the mechanisms responsible for the evolution of species. The evolutionary theist, by accepting (3) must reconsider several of the claims entailed in the non-evolutionary theistic view. It must reconsider the claim that there is a permanent and fixed number of possible species, which are predetermined in the mind of God. It must also reconsider the idea of eternal essences. I will not confront these challenges here nor discuss how the theist may attempt to resolve these apparent inconsistencies. The purpose here is to present a brief sketch of the general view of the evolutionary theist’s position.

There are a variety of theistic combatibilist views. They differ in either the way they go about reconciling evolution with creation, or in subtle distinctions in their final view of the universe. They all, however, will reserve a special place for the human species, as having a privileged relationship with the creator. One view claims that all species have evolved (either by natural selection or by divine intervention), except the human species. A second view states that all species have evolved (either by natural selection or divine intervention) but the human species could not have evolved solely



by natural selection. Both views take God to be the ultimate designer and creator of the universe.

The first view is similar to the non-evolutionary theistic view, insofar as it shares the claim that the human species was originally created by God. Under this view, some Christians give literal credence to the biblical story of Adam and Eve. This view accepts the central thesis of evolution for all species, except the human species. According to this view, the essence of the human species has not evolved; it is an eternal essence. This view is in line with important Christian beliefs, such as the belief that human beings are created in the image of God, and that human beings are God's special creation. However, this view seems arbitrary and motivated more by religious concerns than by evidence.

The second view states that all species have evolved (including the human species' body and brain/mind) but denies that the human species' mind could have evolved to its present state solely by natural selection. This line of argumentation was adopted by Alfred Russel Wallace, an evolutionist in Darwin's time. Wallace was a naturalist, much younger than Darwin, who was convinced in the evolution of species. In 1858, one year before Darwin published *The Origin of Species*, Wallace sent Darwin a paper entitled, "On the Tendency of Varieties to Depart Indefinitely from the Original Type."<sup>9</sup> Wallace, however, disagreed with Darwin on one issue, namely, the case of the human species. James Rachel explains the historical controversy as follows:

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<sup>9</sup> For a concise history of the relationship between Wallace and Darwin see Chapter 1 of James Rachels', *Created From Animals: The Moral Implications of Darwinism*, (Oxford University Press, 1990).

Among those who exempted man from the general evolutionary scheme was Darwin's old friend and rival Wallace. Wallace took a view very similar to that of Mivart: he held that the theory of natural selection applies to humans, but only up to a point. Our bodies can be explained in this way but not our brains. Our brains, he said, have powers that far outstrip anything that could have been produced by natural selection. Thus he concluded that God had intervened in the course of human history to give man that 'extra push' that would enable him to reach the pinnacle on which he now stands. Like Mivart, Wallace thought that this concession would help to reconcile religion and evolutionary theory.<sup>10</sup>

A new variant of this second view is Plantinga's view<sup>11</sup>, which states (simplified for our purposes) that it is more probable and thus more reasonable to believe that the human species evolved by some Divine intervention than by natural selection alone.<sup>12</sup>

The non-evolutionary theistic view is scientifically antiquated and is received with very little interest in academic circles. Therefore, I feel it deserves little attention, and thus I will exclude it from any further analysis. Of the two compatibilist views, I will only consider the second, which seems to cohere best with the available scientific evidence. There are two essential disagreements between the evolutionary theistic view and the Darwinian evolutionary view. First, theistic evolutionists believe that the divine hand is in some way involved in the evolutionary process. Darwinian evolutionists believe that the evolutionary process works primarily by natural selection and no divine intervention is involved. Second, theistic evolutionists believe that the notion of species is essential and real, at least with respect to the human species. Darwinian

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<sup>10</sup> James Rachels', *Created From Animals: The Moral Implications of Darwinism*, (Oxford University Press, 1990) p. 58.

<sup>11</sup> Alvin Plantinga, *Warrant and Proper Function*, (Oxford University Press, 1993) Ch. 11 and 12. For a more in depth discussion on Plantinga's argument see *Naturalism Defeated? Essays On Plantinga's Evolutionary Argument Against Naturalism* (Cornell University Press, 2002).

<sup>12</sup> Plantinga's precise conclusion of his preliminary argument is that "your belief that our cognitive faculties are reliable gives you a reason for rejecting naturalism and accepting its denial." P.228 and his conclusion of his main argument is that it is irrational to accept naturalism. Plantinga says, "the argument is not for the falsehood of naturalism, but for the irrationality of accepting it" Alvin Plantinga, *Warrant and Proper Function*, P. 235

evolutionists do not believe that there is any real notion of species. In what follows I will focus on the latter disagreement.

Is it important whether one believes there are such things as species? To begin with, there is an important logical connection with the existence of species and the existence of God. The elimination of species as real entities also eliminates the possibility of a world in which living things have eternal essences. It also eliminates the possibility of a world in which the human species, as we know it today, represents the pinnacle of a creation by design. It relegates the human species from a being created by design by God to a being descendant from other species, a work-in-process, transitory being that is on its way to no one knows where. The elimination of species from the universe strips the universe from all theistic layers necessary to accept traditional religion as we know it. What is clear is that Darwin's doctrine of species is incompatible with the theistic doctrine that claims that the human species is created in the image of God. Rachels has argued for a similar conclusion by trying to show that evolutionary theory is incompatible with the image of God thesis. He argues that, even though some version of theism may be salvaged, the repudiation of this thesis has significant consequences of our moral framework.<sup>13</sup> As I will show below, Darwin was aware that his view of the specie-less world was inconsistent with the view that "species" are the result of a special act of creation.

### ***2.3 Darwinian Evolutionary View of Species***

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<sup>13</sup> See James Rachels, *Created From Animals: The Moral Implications of Darwinism*, (Ch. 5 "Morality without Humans Being Special.")

Darwin uses various concepts in his discussion of the 'variations under nature.' He uses family, genera, species, varieties, individual differences, form, and incipient species. These classificatory concepts designate distinct clusters of natural organisms according to the level of similarity and distinction they manifest among each other. Family represents the largest group into which similar organisms can be grouped. Genera represent a subgroup of family and are composed of one or more species. Species represents a subgroup of genera and are considered to represent a real distinction among organisms in the natural order. Darwin was aware of species' connection with divine creation and the important role the concept played in theistic views of the universe. He says, "Generally the term (species) includes the unknown element of a distinct act of creation."<sup>14</sup>

### **2.3.1 Varieties**

Varieties are subgroups within a given species that can be distinguished by marked and notable distinctions. Thus there may be various varieties (or subgroups) within a given species. Darwin explains varieties as follows:

The term 'variety' is almost equally difficult to define [as species]; but here the community of descent is almost universally applied, though it can rarely be proved. We have also what are called monstrosities; but they graduate into varieties. By monstrosity I presume is meant some considerable deviation of structure in one part, either injurious to or not useful to the species, and not generally propagated. Some authors use the term 'variation' in a technical sense, as implying a modification directly due to the physical conditions of life; and 'variation' in this sense are supposed not to be inherited: but who can say that the dwarfed plants on Alpine summits, or the thicker fur of an animal from far northwards, would not in some cases be inherited for at least some few generations? and in this case I presume that the form be called a variety.

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<sup>14</sup> Charles Darwin, *The Origin of Species* (Random House Value Publishing, Inc. 1979) p.101

In this passage, Darwin expresses his disagreement with the orthodox understanding of variability and his skepticism with the commonly accepted claims concerning heredity.<sup>15</sup>

In his discussion of the difficulty in discerning between varieties and species, Darwin begins to lay out his doctrine of species. How does one know whether a distinction is sufficient for a group of organisms to constitute a distinct variety of a given species, or another species altogether within a given genus? Darwin says, "When a young naturalist commences the study of a group of organisms quite unknown to him, he is at first much perplexed to determine what differences to consider as specific, and what as varieties; for he knows nothing of the amount and kind of variation to which the group is subject. ... As he extends the range of his observations, he will meet with more cases of difficulty; for he will encounter a greater number of allied forms."<sup>16</sup> Unfortunately for the young naturalists, according to Darwin, he will never have at his disposal an objective formula that will guide his evaluations of the distinctions between species and varieties. Through her experience with many kinds of varieties and species, through the authoritative judgments of experienced naturalists, and through analogies, she will have to form her own basis for evaluations. Darwin elaborates the difficulty by providing numerous examples, which I do not intend to present here. My interest is in the philosophical repercussions of Darwin's seemingly innocuous problem.

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<sup>15</sup> The science of heredity was relatively at an early stage of development and not a lot was known about how offspring acquired their parents' traits.

<sup>16</sup> *Ibid.*, p. 106

Darwin believes that the young naturalist and all others interested in determining whether something is a species or a variety will eventually have to submit to the majority of opinion of experienced naturalists. He says,

Hence, in determining whether a form should be ranked as a species or variety, the opinion of naturalists having sound judgment and wide experience seems the only guide to follow. We must, however, in many cases, decide by a majority of naturalists, for few well-marked and well-known varieties can be named which have not been ranked as species by at least some competent judges."<sup>17</sup>

At this point of the discussion, the crucial question is whether the naturalist's inability to objectively discern the difference between a variety and a species is only an epistemological problem? Or, is the naturalist's epistemological deficiency grounded in a more serious metaphysical difficulty? If the inability to discern the difference between species and variety were only an epistemological problem and not a metaphysical one, then there would exist in reality a set of organisms that are rightly called species and others that are rightly called varieties, but, because of our intellectual limitations, we would not always be able to infallibly discern between these groups.

For Darwin, the problem of the naturalist's inability to objectively discern the difference between a variety and a species is a pseudo problem grounded on a metaphysical mistake. It is a "problem" that has no solution because once the mistaken metaphysical underpinnings are eliminated, the problem dissolves. The metaphysical mistake lies in the metaphysical assumptions with which the naturalists are working with concerning the term "species". Darwin does not explain the problem with the same philosophical terminology I use here, but his view implies a similar metaphysical

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<sup>17</sup> Ibid., p. 104

criticism. Darwin says, "I was much stuck how entirely vague and arbitrary is the distinction between species and varieties."<sup>18</sup> He goes on to say:

Certainly no clear line of demarcation has yet been drawn between species and sub-species – that is, the forms which in the opinion of some naturalists come very near to, but do not quite arrive at the rank of species; or, again, between sub-species and well-marked varieties, or lesser varieties and individual differences. These differences blend into each other in an insensible series; and a series impresses the mind with the idea of the actual passage.<sup>19</sup>

Later he emphasizes that "We have seen that there is no infallible criterion by which to distinguish species and well –marked varieties."<sup>20</sup>

At the beginning of this paper, I said that to understand Darwin's meaning (or meaninglessness) of the notion of species, we need to first understand his view of "organic beings in a state of nature."<sup>21</sup> In the above quotations, Darwin presents a first look at his view of organic beings in a state of nature. The view is one where there is a spectrum of organic beings that are separated by differences, and these differences are more a matter of quantity than quality. Darwin says, "Undoubtedly there is one most important point of difference between varieties and differences; namely, that the amount of difference between varieties, when compared with each other or with other parent-species, is much less than that between species of the same genus,"<sup>22</sup> Moreover, all actual beings are "beings-in-transition". Darwin's view of the order of organic being in nature is similar to Heraclitus' view of the world, insofar all beings are in the process of continuous modification. The best evidence for this is the existence of groups of

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<sup>18</sup> Ibid., 104.

<sup>19</sup> Ibid., 107.

<sup>20</sup> Ibid., 111

<sup>21</sup> For his discussion on this topic see Chapter II "Variation Under Nature" of the *Origin of Species*.

<sup>22</sup> Ibid., 112

organic beings whose differences blend across the spectrum of an entire genus, from species through varieties and into individual differences among members of the same species. I have not yet shown that Darwin rejects the reality of species, but already we can see from his view of organic beings in the state of nature, specifically varieties, that he is headed in that metaphysical direction.

### ***2.3.2 Individual Differences***

Individual differences represent slight modifications in individuals within a variety of a given species. These differences could be observed in every species, but, possibly because of their abundance, they were not considered by naturalists very important. Even today, the importance of the subtle differences that exists between individuals of the same species for Darwin's theory of evolution is not fully valued. Some imagine that evolution begins with some major random mutation causing a significant modification in an individual, distinguishing it significantly from the other members its species. However, this view is misguided and misrepresents the central idea of Darwinism. Indeed, the opposite is true: the heart and foundation of Darwin's theory of natural selection is the individual differences. The Darwinian evolution rests on individual differences and not significant mutations. Darwin explains:

Again, we have many slight differences which may be called individual differences, such as are known frequently to appear in the offspring from the same parents, or which may be presumed to have thus arisen, from being frequently observed in individuals of the same species inhabiting the same confined locality. No one supposes that all the individuals of the same species are cast in the very same mould. *These individual differences are highly important for us, as they afford materials for natural selection to accumulate* [my emphasis], in the same manner as man can accumulate in



any given direction individual differences in his domesticated production.<sup>23</sup>

Darwin goes on to argue that the important differences that divide two varieties or two subgroups of a given species begin as subtle individual differences between individuals within a given species. He argues, "Hence, I look at individual differences, though of small interest to the systematist, *as of high importance for us, as being the first step towards such slight varieties as are barely thought worth recording in works of natural history* [my emphasis]."

### 2.3.3 *The Rejection of the Reality of Species*

Darwin's view of organic beings in the state of nature provides sufficient evidence to defend the argument that he was not a metaphysical realist with respect to species. In this section, however, I will present even stronger evidence for this claim. I will proceed by explaining two final concepts in Darwin's work: form and incipient species.

Darwin uses the concept form, which has a long history and strong connotations in philosophy, when he wants to refer to an organism's structure and habits. He understands the term as distinct from both species and variety. Notice the use in this sentence, "Hence, in determining whether a form should be ranked as a species or a variety, the opinion of naturalists having sound judgment and wide experience seems the only guide to follow."<sup>24</sup>

Darwin uses the term "incipient species" to refer to well-marked varieties. He says, "Hence I believe a well-marked variety may be justly called an incipient

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<sup>23</sup> Ibid., p. 101-2

<sup>24</sup> Ibid., p. 104

species;”<sup>25</sup> He views these varieties as not yet having acquired sufficient differences from the parent species to be considered a species. The introduction of the concept of incipient species does two things for Darwin’s view of organic beings in a state of nature. First, it gives the state of nature a sense of fluidity and plasticity. This view stands in contrast to the rigid and fixed theistic view of nature, one in which the concept of species represents real eternal essences. Second, since an incipient species represents a group of organisms that are at a transitional stage ready to become a new species, it provides a natural explanation and a point of origin for species. This view makes the theistic view that God is in some way involved with the commencement of species superfluous. But couldn’t we still say that Darwin does not dispense with the concept of species altogether? Isn’t there some possibility to salvage the concept of species so that it can once again be lifted up on the pedestal of eternal essences? If we have correctly understood Darwin’s view of organic beings in a state of nature, and this can only be done when pushed to its logical consequences, the answer is no. The theistic view of species is logically inconsistent with the Darwinian paradigm of nature. In an attempt to summarize the logical consequences of his view of nature, Darwin says:

From these remarks it will be seen that I look at the term species, as one arbitrarily given for the sake of convenience to a set of individuals closely resembling each other, and that it does not essentially differ from the term variety, which is given to less distinct and more fluctuating forms. The term variety, again, in comparison with mere individual differences, is also applied arbitrarily, and for mere convenience sake.<sup>26</sup>

Darwin has given the final blow to the concept of species; eliminating the possibility of attributing to it any form of reality. Instead, he has revealed a view of nature composed

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<sup>25</sup> Ibid., p. 107

<sup>26</sup> Ibid., p. 108.

of a large number of organisms, some sharing more similarities than others, but none which can be said to form a real species. Moreover, even though the differences between organisms and species are *real* and can offer a basis in reality, the cataloguing of species remains arbitrary and does not represent some existent reality. Moreover, even though the method of determining the distinct species and varieties may be based on an objective reasonable logic (i.e. it is not arbitrary), the species themselves represent nothing real, simply a cluster of organisms that share some properties and habits that have been selected by naturalists.

But couldn't the theists argue that God created a world with many varieties of natural organisms and without species? Does the theist require a metaphysically real concept of species? Or we can ask George Mavrodes' question: Is there any evidence that things would have been different if God was directing the process?<sup>27</sup> There are two responses to these questions. First, the theist runs into logical problems when he gives up a metaphysically real concept of species, because of his belief that the human species is made in the image of God. If the human species is special in this way, we would expect it to have a special essence, one that is partly divine and eternal. Darwin's doctrine of species precludes us from attributing to the human species this kind of privileged status. Second, the distribution and growth of varieties, incipient species, and species found in nature are what one would expect under Darwin's doctrine of species, but not under a creationist view of species. In other words, if God were the

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<sup>27</sup> George Mavrodes, "'Creation Science' and Evolution" (Letter), *The Chronicle of Higher Education*, 7 Jan. 1987. He says, "But I think they are also unlikely to find any evolutionist who will give them a plausible and well-supported idea of how the evidence would have been different if God were directing the process." p. 43.

directing the process, there is no reason one should expect the kind of distribution of species and varieties that is found in nature. Darwin presents the argument as follows:

From looking at species as only strongly-marked and well-defined varieties, I was led to *anticipate* [my emphasis] that the species of the larger genera in each country would oftener present varieties, than the species of the smaller genera; for wherever many closely related species (i.e. species of the same genus have been formed, many varieties and insipient species *ought as a general rule*, [my emphasis] to be now forming. Where many large trees grow, we expect to find saplings. Where many species of a genus have been formed through variation, circumstances have been favorable for variation; and hence we might expect that the circumstances would generally be still favorable to variation. *On the other hand if we look at each species as a special act of creation, there is no apparent reason why more varieties should occur in a group having many species, than in one have few.* [my emphasis]<sup>28</sup>

#### ***4. Species and Human Dignity***

Rachel points out that in answering the question: “If we accept a Darwinian view of human origins, must we therefore abandon the idea of human dignity?”<sup>29</sup> most interpreters and supporters of Darwin have answered in the negative. The argument that has driven this line of thought has been Hume’s idea that “ought” judgments cannot be deduced from “is” judgments. This principle, which Rachels refers to as ‘Hume’s Guillotine’, has precluded Darwin’s theory from influencing realm of moral thought. Rachel summarizes this influence as follows:

Moral philosophers have been largely indifferent to Darwin, and fear of Hume’s Guillotine has been largely responsible for that indifference. ‘The facts of evolution do not entail any normative conclusions’: most philosophers have assumed that, once this simple observation has been made, there is little more to be said.<sup>30</sup>

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<sup>28</sup> Ibid., p. 110.

<sup>29</sup> Rachels, p. 92.

<sup>30</sup> Rachels, p. 92.

Rachels' project requires that he affix the "Is-ought" connection severed by Hume's Guillotine. I agree with Rachels, that factual judgments do influence moral judgments. However, I believe that his arguments for why they do fail. I will provide arguments of my own that show that there is an important influential relationship between facts and moral judgments. Clarifying this issue is important if one wants to make any kind of connections between Darwinism and morality.

First let me consider Rachels' solution. He distinguishes between logical entailment and good reasons. The former is a logically necessary form of deduction. The latter refers to a weaker form of evidence in support of a claim. He argues that, given this distinction, Hume's principle should be interpreted as follows: "a factual judgment cannot entail a moral judgment". However, he argues, we may claim that 'a factual judgment presents good reason for us to accept a given moral judgment'. Rachels solution fails to capture Hume's point.

Hume's point was that *central* and *general* moral and value claims cannot be determined by facts about the world. He didn't think that this was simply a matter of degree, so that while a factual claim could not entail a moral claim, it could lend some support for the truth of the moral claim. Instead, he thought the difference was one of kind, and thus there simply was no logical relationship between factual claim and moral claims. But if this is true then how could I still possibly agree with Rachels' conclusion: factual claims have a significant influence on moral claims?

There are two aspects to moral judgments: 1) one resides in the abstract moral domain where one determines general moral obligations; and 2) the other resides in the

concrete moral domain where one determines how one fulfills one's given moral obligation in a given concrete situation. With respect to the first domain of morality Hume's Guillotine applies. However, in the second domain, Hume's guillotine doesn't apply. It doesn't apply because technically factual judgments, while influencing the application of moral judgments in concrete situations, never really influence the moral judgments themselves. Let me provide an example that will help illustrate my point.

Imagine that part of my value system includes the belief that things that belonged to very close relatives should be treated with the greatest dignity and respect. Imagine that I now own a ring that belonged to my grandmother. Given my value system, I have certain moral obligations toward the care of that ring, regardless of its monetary worth. Now how could a factual judgments influence my moral judgments, or should I say the application of my moral judgments.? Imagine that I discover tomorrow that the ring I own and have been cherishing for so many years is was not my grandmothers. This new fact does not affect my value system, or my general moral judgment that things that belonged to very close relatives should be treated with the greatest dignity and respect. However, it does change my specific and concrete moral judgment towards the particular ring I believed to be my grandmothers but in fact is not.

Let us not apply this to the specific case of Darwinism and human dignity.

## 5. Conclusion

This paper has reconstructed Darwin's *doctrine of species* and shown its logical consequences for the philosophical concept of species, which is central to theism. I have explained the central role that the concept of species plays for both non-evolutionary theistic views and evolutionary theistic views. I have argued that Darwin's view is a persuasive one that dissolves the concept of species from a metaphysical realistic one to a metaphysical nominalistic one, i.e. to simply a name that designates an arbitrarily convenient group of organisms. This result undermines the traditional theistic doctrine of human dignity. Rachel, in *Created from Animals*, presents a similar criticism but from the central idea of evolution by natural selection and not by Darwin's notion of species. He says, "I shall argue, however, that discrediting 'human dignity' is one of the most important implications of Darwinism, ..." <sup>31</sup> Darwin's doctrine of species, therefore, is as challenging for traditional theistic views as is his evolutionary theory. Nevertheless, since very little research has been devoted to it, little is known about how theistic views may respond to the challenge it presents. Can traditional theism be reconciled with Darwin's view of organic beings in the state of nature? Can traditional theism be reconciled with the view of nature in which organic beings are separated by differences of quantity rather than quality? Does traditional theism have to respond to Darwin's doctrine of species? If it does, it will have to consider a natural order of organic beings with the three following characteristics: 1) all existing beings are beings-in-transition, insofar as they are in the process of continuous modification; 2) the differences between

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<sup>31</sup> James Rachels, *Created From Animals*, pp. 79-80.

groups of organic beings blend across the spectrum of an entire genus, from species through varieties and into individual differences among members of the same species; and 3) there is no entity in reality to which the name "species" truly designates. Thus, there is no entity in reality to which the name "human" truly designates. How is traditional theism to respond? This is a matter for another time and another paper.