Between Holy Russia and a Monkey: Darwin's Russian Literary and Philosophical Critics

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BETWEEN HOLY RUSSIA AND A MONKEY: DARWIN’S RUSSIAN LITERARY AND PHILOSOPHICAL CRITICS

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DEDICATION

To the women who made this dissertation possible: Judith Kalb, Alice Geary, Lynne Geary, Alice Clemente, Megan Stark, Katherine Mark, Marilyn Dwyer, and, finally, Shannon, Eleanor, and Caroline Mooney.
ACKNOWLEDGEMENTS

This project began, little did I know, after reading Lev Tolstoy’s 1889 novella The Kreutzer Sonata. Tolstoy, whom I had admired for the empathy he showed his characters in Anna Karenina, championed ideas in his novella that seemed to me so wrong-headed and unlike the Tolstoy who had made a character so pitiable as Anna. As I searched for the cause of Tolstoy’s anti-Darwinism, I came to realize just how relevant evolutionary biology in general and Darwinism in particular could be to our sense of meaning and morality.

As my study grew to include the journalist Nikolai Strakhov and the philosopher Vladimir Solovyov and, ultimately, into the dissertation before you, I accumulated a series of debts to people, without whom this dissertation would not have been possible. First and foremost, I would like to thank my dissertation committee: Drs. James Barilla, Jeffrey Dudycha, Alexander Ogden, and Judith Kalb. In particular, I would like to thank Dr. Kalb for her quick and invaluable feedback and guidance every step of the way. She also came up with the idea of modifying a line from the author Aleksei Remizov’s “Besties” (“Krestovye sestry”) (1910) to use as the title for my dissertation. I would also like to thank Dr. Dudycha for the many conversations we had about evolutionary biology over lunch. I would like to thank Andrew Drozd for reading a draft of my chapter on Strakhov and for the feedback he, Stephen Woodburn, Yvonne Howell, and Melissa Miller gave me on the condensed versions of the chapter that I presented at ASEEES and SCSS. I would like to thank Daria Smirnova for the trips she made to the Russian
National Library for me and for the endless scans she made to furnish material for the section “A Note on the Language of Evolutionary Biology” in my introductory chapter. I would also like to thank Dr. Ogden and Andrew Drozd for their feedback on a draft of that same section, which I presented at SCSS.

Finally, I want to thank Yuri, Caroline, and Shannon Mooney for their unconditional love and patience.
This dissertation is dedicated to the response of nineteenth-century Russian writers to the English naturalist Charles Darwin’s theory of evolution by natural selection. His theory was by no means the next discovery in a series of indistinguishable scientific discoveries; the fact that its implications touched every aspect of human social life was lost on no one, despite the fact that Darwin did not discuss human evolution in any detail. The Origin changed what it meant to be human: what Darwin’s readers took to be their place in the universe and how they ought to act with regard to both other humans and other animals. But when the Origin came to Russia, the moral and cosmological significance of Darwin’s work was grafted onto Russia’s combined historical, social, economic, political, and religious conditions. With their cultural status as near-prophetic, moral authorities, Russian writers became the vehicle through which Russians during this turbulent time accepted, rejected, dissected, rewrote, and grappled with Darwin’s ideas and their ramifications. This dissertation focuses on the understudied responses of three writers in particular: the journalist Nikolai Strakhov, the novelist Lev Tolstoy, and the philosopher Vladimir Solovyov. As I show, despite each writer’s varying background and response to Darwin’s theory, they all shared similar moral concerns. Initially supportive, Strakhov changed his mind, once he realized that Darwin’s theory did not support his own anthropocentric philosophy of organicism. Tolstoy also initially supported Darwin’s theory, but following his conversion to an idiosyncratic Christianity, he became convinced that Darwin’s theory was being used to justify immorality and was incapable
of serving as the foundation of an ethical system. Solovyov, on the other hand, was a lifelong supporter of Darwin’s theory, though in order to accommodate his own anthropocentrism, he had to downplay its utilitarian and relativistic nature. Ultimately, Tolstoy and Strakhov share a concern about the implications of concept of the struggle for existence for morality, whereas Tolstoy and Solovyov worried that the implications of morality as an adaptation would undermine the foundation of morality. A concern all three writers nevertheless shared was the use of evolutionary theory to justify moral and social behaviors – what was then called “evolutionary ethics,” or “Social Darwinism.” This study contributes the study of how the response to Darwinism varied by country and the moral concerns that underpin responses to scientific ideas more generally.
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CHAPTER ONE

INTRODUCTION

The barrel of the pistol pointing straight at his face, the expression of hatred and contempt in the pose and the whole figure of von Koren, and this murder that a decent man was about to commit in broad daylight in the presence of decent people, and this silence, and the unknown force that made Laevsky stand there and not run away – how mysterious, and incomprehensible, and frightening it all was! The time von Koren took to aim seemed longer than a night to Laevsky. He glanced imploringly at the seconds; they did not move and were pale. (Chekhov 228)

Thus the Russian writer and physician Anton Chekhov’s novella “The Duel” (1891) reaches its climax, as the zoologist Nikolai von Koren takes aim at the former philology student Ivan Laevsky, in an attempt to put his program of evolutionary ethics into action.¹ Such programs are based on theories of human social development and maintenance that rely in some way on facts about the evolutionary process. Having come to the conclusion that Laevsky is, among other things, a congenital philanderer and liar and therefore incapable of reform, von Koren believes that he has no choice but to carry out his moral duty to protect humankind and neutralize the danger he believes Laevsky represents to it by ensuring that he will not procreate (Chekhov 142). Failing to find a non-lethal alternative, von Koren challenges Laevsky to a duel.

¹ I use the term “evolutionary ethics” in place of the standard “Social Darwinism” for a few reasons. First,
On the day of the duel, Laevsky shoots first and makes a show of firing into the air. Then, just as von Koren is about to pull the trigger, he is distracted by a bystander’s outburst and misses (Chekhov 212; 229); unbeknownst to von Koren, the bullet grazes Laevsky’s neck (Chekhov 231), and thus brings to an end the moral transformation that had begun in Laevsky the night before as he contemplated the prospect of dying. Later, on seeing Laevsky’s transformation, von Koren realizes that he had misjudged Laevsky, who proved to be capable of changing his ways. This realization does not, however, cause von Koren to reevaluate his convictions about evolutionary ethics. In fact, von Koren confesses to Laevsky that he maintained these beliefs in spite of Laevsky’s change (Chekhov 234); he changed his mind only about Laevsky himself.

Thus, far from being an indictment of evolutionary ethics as a whole, “The Duel” casts doubt, instead, on only the prospects of reliably ascertaining an individual’s capacity for reform. The fact that it took the fear of dying to bring about this transformation in Laevsky underscores this difficulty and the dangerous potential of conclusions drawn without thorough study.²

More generally, “The Duel” illustrates the intuitive immediacy and relevance to everyday life of such scientific theories as the English naturalist Charles Darwin’s theory of evolution by natural selection in the late nineteenth-century in Russia. Indeed, the importance of science to morality was by no means a subject reserved for philosophers. Chekhov wrote “The Duel” as a wave of evolutionary ethics was sweeping across Europe

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and North America.\(^3\) By dramatizing such pressing questions about the relationship between science and morality, Chekhov brought them to life, together with all their moral and practical complexities. In so doing – though Chekhov himself would deny this – he was performing a civic duty that had become part and parcel of the Russian literary tradition.

The Cultural Status and Civic Duty of Writers in Imperial Russia

The Russian literary tradition has long embraced a culture of social criticism. Dating back to the late eighteenth century, Russian writers and publicists wrote criticism, bemoaning Russia’s state of arrested development. The empress Catherine the Great for a time even encouraged their critiques (Riasanovsky and Steinberg 289). The role of the writer radically changed, however, in the nineteenth century when two nascent conceptions of the writer emerged and intensified the demands of the writer. The first was developed by the Ukrainian writer Nikolai Gogol (1809-1852) who, in 1847, published *Selected Passages from Correspondence with Friends*, a collection of letters and essays that he used, in part, to establish a tradition of Russian writers as prophets.\(^4\) As such, writers took it upon themselves to show their readers the way to spiritual regeneration and salvation. The other conception was championed by the Russian literary critic Vissarion Belinskii (1811-1848), who maintained that literature ought to be both true to life and committed to righting the wrongs of Russian society. In so doing,

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\(^3\) The inspiration for the story came from a friendly disagreement Chekhov had with Vladimir Wagner (1849-1934), a Russian zoologist and fervent “Social Darwinist” (Finke 107).

Belinskii elevated the status of social criticism in literature to a civic duty.\(^5\) As the Russian literary critic Dmitrii Mirsky (1890-1939) would later note in his classic *The History of Russian Literature*, the ethical obligations that Belinskii demanded of writers proved immensely influential for the Realist movement of the 1850’s and 1860’s: “Never did a literary development so exactly answer to the expectations entertained by a leading critic” (Mirsky 178). Indeed, the works of such Realist writers as Fyodor Dostoevsky, Lev Tolstoy, and Ivan Turgenev were distinguished by their close engagement with turbulent events of the day.

Russia underwent a period of profound upheaval following its capitulation in the Crimean war (1853-1856) to an alliance made up of France, Great Britain, Turkey, and Sardinia. Tsar Nicholas I, who had ruled since 1825, died in 1855, and his successor Alexander II (reigned 1855-1881) brought the war to an end, marking the beginning of an era known as the “Great Reforms.” The defeat in Crimea had underscored the urgent need for reform in Russia (Riasanovsky and Steinberg 335-336). Alexander II, who came to be known as the “Tsar-Liberator,” oversaw the 1861 abolition of serfdom as well as reforms made to Russia’s legal system and military, utterly transforming Russia (Riasanovsky and Steinberg 370-372).

Many Realist writers, who had grown up under Nicholas I’s stultifying rule, wrote their most enduring works during the more permissive reign of Alexander II. True to Belinskii’s call for a civic and realistic literature, these writers reflected and reacted to Russia’s radically changing social and political landscape. In so doing, leading writers

\(^5\) In fact, after reading Gogol’s *Selected Passages from Correspondence with Friends*, Belinskii, who had long admired Gogol, took issue, in a letter to Gogol, with what he saw as the implications of the prophetic tradition that Gogol was constructing; he feared that Gogol’s emphasis on religion would exacerbate the very social ills that Belinskii sought to ameliorate. For more, see: Vissarion Belinsky’s “Letter to Gogol” in *Selected Philosophical Works*. Moscow: Foreign Language Publishing House, 1956. 536-54.
such as Lev Tolstoy and Fyodor Dostoevsky came to enjoy enormous moral and social authority in the eyes of their readers. Indeed, by the 1890’s, after three decades of writing, Tolstoy’s influence had become such that, as one journalist famously claimed: “There are two tsars in Russia: Nicholas II and Lev Tolstoy…Nicholas II can’t do anything to Tolstoy, he can’t shake his throne, whereas Tolstoy undoubtedly shakes that of Nicholas and his dynasty” (Surovin 168).

Darwin Goes to Russia

It was also during this period of change that news of the English naturalist Charles Darwin’s revolutionary work *On the Origin of Species* (1859) came to Russia. The news proved brief and vague because the author of the notice had yet to read the *Origin*. Copies in English, French, and German soon came to Russia, and Darwin’s ideas were widely discussed within the scientific community. It was not until 1864, though, when the first Russian translation of the *Origin* was published, along with several other Darwinist books, that Darwin’s book became the subject of intense controversy in Russia.

The theory of evolution by natural selection that Darwin set forth in the *Origin* was not merely the next discovery in a series of indistinguishable scientific discoveries;

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6 “Два царя у нас: Николай II и Лев Толстой… Никола́й II ничего не может сделать с Толстым, не может поколебать его трон, тогда как Толстой несомненно колеблет трон Николая и его династии” (Суровин 168).

7 For more on the early reception of the *Origin*, see: Samuil Sobol’s “Первые сообщения о теории Ч. Дарвина в русской печати” in *Bülaten’ Moskovskogo obshchestva ispytatelei prirody. Otdel biologicheskii*; also see Boris Raikov’s “Из истории дарвинизма в России” in *Istoriiia biologicheskikh nauk*.

8 Initially, the Russian paleontologist Vladimir Kovalevskii contacted Darwin, requesting to translate his *The Variation of Plants and Animals Under Domestication* (1868) (Darwin Correspondence Project, letter no. 5421). Darwin responded, asking whether *On the Origin of Species* had been translated into Russian yet. Darwin knew that Friedrich Rolle’s exposition of the *Origin* had been translated into Russian, but did not know that the book itself had been translated and thought it should be translated first (DCP, letter no. 5464). Kovalevsky replied, saying: “Your former book, the “Origin of Species” is translated and printed some three years ago” (DCP, letter no. 5452).
the fact that its implications touched every aspect of human social life was lost on no one, despite the fact that Darwin did not discuss human evolution in any detail. The *Origin* changed what it meant to be human: what Darwin’s readers took to be their place in the universe and how they ought to act with regard to both other humans and other animals. But when the *Origin* came to Russia, the moral and cosmological significance of Darwin’s work was grafted onto Russia’s combined historical, social, economic, political, and religious conditions. With their near-prophetic stature, Russian writers became the vehicle through which Russians during this turbulent time accepted, rejected, dissected, rewrote, and grappled with Darwin’s ideas and their ramifications. Writers created their own “Darwins,” dependent on each individual writer’s particular goals and world views. Their Darwin-focused texts thus provide a fascinating window into Russian Darwin reception on the verge of the modernist era.

The Writers and Their Texts

The body of Russian texts written in response to Darwin’s work is considerable. The works I have chosen to study are by and large understudied texts written by prominent authors, namely, the journalist Nikolai Strakhov (1828-1896), the novelist Lev Tolstoy (1828-1910), and the philosopher Vladimir Solovyov (1853-1900). They were members of the same social circle and shared certain underlying concerns about Darwin’s work and what it meant for human life, though their concerns took varying forms. The relatively little attention these texts have received has resulted in a scholarly oversight of the ubiquity of Darwin’s ideas in Russia beyond the scientific community during the second half of the nineteenth century.
In chapter 2, I argue that Strakhov, most famous in the history of science for his public defense of the naturalist Nikolai Danilevskii’s anti-Darwinist tome *Darwinism* (*Darvinizm*) (1885; 1889) in the late 1880’s, initially hailed the *Origin* as a pioneering work of science. At this point, I note, Strakhov had only read a sketch of Darwin’s ideas and therefore thought that they were more in sync with Strakhov’s ideas than they actually were. Once Strakhov realized his mistake – that Darwin’s ideas did not in fact support his anthropocentric worldview – Strakhov became and remained a staunch anti-Darwinist for the rest of his life, and, never bringing up his brief period as a Darwinist again, acted as if it had never happened.

Tolstoy’s own transformation from Darwinist to anti-Darwinist forms the subject of chapter 3. There I maintain that Tolstoy’s change of heart was driven by moral anxiety. Initially, Tolstoy was vaguely supportive of Darwin’s work, but after going through a period of profound moral crisis that resulted in his conversion to an idiosyncratic Christianity, he could see Darwinism only in terms of the risk that he thought it posed to morality. He was convinced that not only was Darwinism used to excuse immoral behavior, but also that any attempt to formulate an ethical system based on Darwinism was doomed to failure because it was impossible to escape the element of self-interest that lay at the theory’s core.

In chapter 4, I turn to Solovyov and his peculiar synthesis of Darwinism, philosophical idealism, and Christianity. I argue that although he was always a vocal supporter of Darwin’s work, in order to accommodate his own anthropocentrism, Solovyov was forced to rework the logical structure of Darwinian theory and downplay
its utilitarian and relativistic nature. I discuss the perhaps surprising adherence to Darwinian ideas in a philosopher often associated with mystical, religious thought.

In my conclusion, I look at patterns that emerge in comparing and contrasting Strakhov’s, Tolstoy’s, and Solovyov’s responses. It should come as no surprise given their presumed status as moral authorities that their responses were marked by a moral concern. In particular, they shared an underlying concern about the effects that Darwin’s ideas would have on how we see our place in the universe and how we treat one another. I conclude by looking to the fate of these ideas and discussions in the new Soviet state, as I turn to the Russian writer and physician Mikhail Bulgakov’s novella *Heart of a Dog* (written in 1925; published in 1968). I examine how Darwinian ideas continued to play out and transform, with the advent of genetics, in the early 20th century. In particular, I focus on the fact that Bulgakov chose to emphasize the biological basis of human behavior at a time when Soviet ideologues claimed that human behavior was largely learned and therefore fundamentally plastic.

**Darwin and the Discovery of Natural Selection**

In order to understand properly how Strakhov, Tolstoy, and Solovyov responded to Darwin’s ideas, we must first establish what those ideas and their implications were. Although Darwin spent approximately a year writing *On the Origin of Species*, its contents were the product of nearly three decades of research. In 1828, having given up on the idea of becoming a physician, Darwin (1809-1882) went to Cambridge, where he spent three years listlessly studying to become a clergyman. Then, in 1831, he was offered the chance to join Captain Robert Fitzroy (1805-1865) on board *HMS Beagle* as
Fitzroy’s gentleman companion on an expedition to chart South America. Darwin accepted the offer.

_HMS Beagle_ set sail on December 27, 1828 and would not return to England until 1836. Because he was not an official member of the crew, Darwin enjoyed the freedom to make long sojourns to the interior of the South American continent, collecting biological and geological specimens. When he was not busy on his collecting excursions, he spent his time reading. Of particular importance to Darwin’s intellectual development was his reading of the geologist Charles Lyell’s *Principles of Geology* (Ruse, *Revolution* 40-44).

The geological picture that Lyell painted rested on three premises: actualism, uniformitarianism, and a steady-state view of the Earth. Lyell took for granted that the same kinds of causes of geological phenomena operate today as did in the past (actualism), that these causes were of the same degree (uniformitarianism), and that the Earth is in a constant state of change (a steady-state Earth). This type of thinking, with its emphasis on laws, proved immensely influential for Darwin as he considered the kinds of laws that govern organisms and speciation.

It was not until Darwin had returned home, though, that he came to understand the full importance of the various species he had observed in South America. He was particularly struck by the differences and similarities he had found among tortoises and finches from different islands in the Galapagos Archipelago. As Darwin began to consider the possible cause of such patterns – what we call “evolution” today –, he first looked to plant and animal breeders for clues as to how such changes could occur. After he became convinced that evolution could occur under such manufactured conditions, he realized that he had to figure out how this process could occur in the wild, without
breeders enabling it. He found the solution in September 1838 after reading the Reverend Thomas Robert Malthus’ *Essay on a Principle of Population* (1798). Realizing that the struggle for resources Malthus described – “the struggle for existence”—could drive evolution, Darwin wrote a brief essay outlining his thoughts. In no hurry to publish his work, Darwin then turned his efforts to studying barnacles. He returned to the essay in 1842 and then again in 1844 and expanded it.

It was not until 1858, when Darwin received a letter from the British naturalist Alfred Russel Wallace (1823-1913) detailing his own ideas on evolution, that Darwin began to write in earnest what would become the *Origin*. Wallace had, in effect, independently discovered the same cause of evolution as Darwin had. (He had even found inspiration in Malthus’ essay.) Wallace’s brief essay was titled “On the Tendency of Varieties to Depart Indefinitely from the Original Type” (1858). Darwin is usually given priority for the discovery, though, because he had come to his conclusions about evolution much earlier and because of his detailed explanation of an evolutionary mechanism – “natural selection” -- in *On the Origin of Species*.

**Darwin’s Theories**

Darwin began the argument he was making for the existence of natural selection with a discussion of plant and animal breeding. He wanted to account for how the numerous varieties of such “domestic productions” came to be. The explanation for their diversity, Darwin thought, lay in what was called “artificial selection” (Darwin, *Origin* 109):
The key is man’s power of accumulative selection: nature gives successive variations; man adds them up in certain directions useful to him. In this sense he may be said to make for himself useful breeds. (Darwin, *Origin* 30)

Thus, in letting only the best stock reproduce, breeders improve the stock over the course of generations. As an example, Darwin notes that by systematically singling out the individual plants in each generation that produced better, larger, or earlier fruit, and by planting seeds from only the fruit of those plants, gardeners had recently managed to improve the quality of strawberries (Darwin, *Origin* 41-42).

To show that something analogous to artificial selection -- natural selection-- takes place in nature, Darwin first had to demonstrate that there is abundant variation in wild organisms, for there can be no selection without alternatives. Darwin pointed out that such variation was, indeed, readily found: “[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 the individuals of the same species inhabiting the same confined locality” (Darwin, *Origin* 45). It is worth noting that Darwin was interested only in heritable individual variation, having declared: “Any variation which is not inherited is unimportant for us” (Darwin, *Origin* 12).

To complete the analogy, Darwin had to convince his readers of a natural equivalent to the animal or plant breeder that determines which organisms live to reproduce. To that end, he adopted the premise that there is a universal competition for limited resources metaphorically called “the struggle for existence.” Darwin described the conditions of the struggle thus:
A struggle for existence inevitably follows from the high rate at which all organic beings tend to increase. Every being, which during its natural lifetime produces several eggs or seeds, must suffer destruction during some period of its life, and during some season or occasional year, otherwise, on the principle of geometrical increase, its numbers would quickly become so inordinately great that no country could support the product. Hence, as more individuals are produced than can possibly survive, there must in every case be a struggle for existence, either one individual with another of the same species, or with the individuals of distinct species, or with the physical conditions of life. It is the doctrine of Malthus applied with manifold force to the whole animal and vegetable kingdoms; for in this case there can be no artificial increase of food, and no prudential restraint from marriage. Although some species may be now increasing, more or less rapidly, in numbers, all cannot do so, for the world would not hold them. (Darwin, *Origin* 63-64)

Taken together, the existence of heritable individual variations in nature and the struggle for existence form the logical structure of his mechanism of evolutionary change -- natural selection:

Let it be borne in mind how infinitely complex and close-fitting are the mutual relations of all organic beings to each other and to their physical conditions of life. Can it, then, be thought improbable, seeing that variations useful to man have undoubtedly occurred, that other variations useful in some way to each being in the great and complex battle of life, should sometimes occur in the course of thousands of generations? If such do occur, can we doubt (remembering that
many more individuals are born than can possibly survive) that individuals having any advantage, however slight, over others, would have the best chance of surviving and of procreating their kind? On the other hand, we may feel sure that any variation in the least degree injurious would be rigidly destroyed. This preservation of favourable variations and the rejection of injurious variations, I call Natural Selection. (Darwin, *Origin* 80-81)

That is, the value of any given heritable variation is relative to the local environment in which it appears. Since all environments are not the identical, whether or not a given variation proves conducive to survival and reproduction will vary from environment to environment. However, when heritable individual variations do emerge and give an advantage in the struggle to survive and reproduce, those variations are more likely to be “preserved” in the offspring of the next generation. Thus, over the course of generations, if conditions remain constant, organisms with that variation will increase in number while organisms lacking that variation – particularly, the rivals to the organisms with the variation - will decrease. In time, as we will see shortly, the accumulation of such variations can lead to the production of new species.

Although natural selection was Darwin’s primary mechanism of evolutionary change, it was by no means his only mechanism. Two other mechanisms have a prominent place in the *Origin*: the inheritance of acquired characteristics and sexual selection. Darwin had adopted the theory of the inheritance of acquired characteristics (or “the theory of use and disuse”) from the French naturalist and transformist Jean-Baptiste Lamarck (1744-1829), and, though Darwin always gave natural selection priority in his
explanations, he would turn to Lamarck’s theory as a last resort. Lamarck himself called it his “Second Law” and gave it the following formulation:

All the acquisitions or losses wrought by nature on individuals, through the influence of the environment in which their race has long been placed, and hence through the influence of the predominant use or permanent disuse of any organ; all these are preserved by reproduction to the new individuals which arise, provided that the acquired modifications are common to both sexes, or at least to the individuals which produce the young. (Lamarck 113)

Darwin, for example, resorted to the theory of “use and disuse” when explaining hereditary blindness in cave-dwelling organisms (Darwin, Origin 138).

Sexual selection, on the other hand,—unlike natural selection—depends, Darwin maintained, “not on a struggle for existence, but on a struggle between the males for possession of the females; the result is not death to the unsuccessful competitor, but few or no offspring” (Darwin, Origin 88). Darwin identified two forms of sexual selection: “male combat” and “female choice.” “Male combat” consists of a direct struggle among males for access to mates. Though the best fitted to survive usually leave the most offspring, Darwin noted that there are sometimes special “weapons” that males use specifically for such combat, including stags’ antlers and roosters’ spurs (Darwin, Origin 88). “Female choice,” on the other hand, is comprised of an indirect struggle. Darwin turns, for example, to birds: “The rock-thrush of Guiana, birds of Paradise, and some others, congregate; and successive males display their gorgeous plumage and perform strange antics before the females, which standing by as spectators, at last choose the most attractive partner” (Darwin, Origin 89). In addition to discussing human evolution in his
The 1872 book *The Descent of Man and Selection in Relation to Sex*, Darwin went into much greater detail about sexual selection.

How do such mechanisms lead to evolution, to the production of new species? Darwin attributed speciation to the gradual accumulation of heritable individual variations. Ultimately, “the small differences distinguishing varieties of the same species, will steadily tend to increase till they come to equal the greater differences between species of the same genus, or even of distinct genera” (Darwin, *Origin* 128). That is, while natural selection and speciation are distinct processes, natural selection can lead to speciation. Over time groups within one species accumulate variations and differ to the point of branching out and becoming distinct species. Darwin describes an implication of this process as a “truly wonderful fact,” that is, the fact that:

all animals and all plants throughout all time and space should be related to each other in group subordinate to group...varieties of the same species most closely related together, species of the same genus less closely and unequally related together, forming sections and sub-genera, species of distinct genera much less closely related, and genera related in different degrees, forming sub=families, families, orders, sub-classes, and classes. (Darwin, *Origin* 128)

In other words, all organisms share a common ancestor.

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9 For all that Darwin did to show that natural selection could produce organisms ever more adapted to their environments, he failed to explain the origin of species. In part, this failure was due to the fact that Darwin lacked a clear notion of what constituted a species. It was also due to the fact that he lacked a theory of heredity. Although the Moravian monk Gregor Mendel (1822-1884) was already conducting his revolutionary experiments with pea plants when Darwin published the *Origin*, the paper Mendel published in 1866, “Experiments on Plant Hybridization,” outlining his experimental findings, was initially ignored. It got a second life only in the 1890's when it was rediscovered, over a decade after Darwin’s death.
Of the foregoing discussion of Darwin’s “theory,” there are certain parts that I will bring up when I discuss how Strakhov, Tolstoy, and Solovyov responded to Darwin’s ideas. In particular, I will return to what the eminent German-American evolutionary biologist and historian of biology Ernst Mayr (1904-2005) described as component theories that make up the larger theory of natural selection Darwin put forth. Breaking Darwin’s theory down into such parts will be useful for our purposes because, as Mayr noted, the fact that these individual components “do not constitute an indivisible whole is demonstrated by the fact that so many evolutionists accepted some of Darwin’s theories but rejected others” (Mayr, Growth 505). And indeed, as we will see, Strakhov, Tolstoy, and Solovyov accepted some parts of Darwin’s theory while rejecting others.

Mayr divided Darwin’s theory into five component parts: what he called “evolution as such,” “natural selection,” “the multiplication of species,” “common descent,” and “gradualism.” “Evolution as such” refers to the fact that the world is not constant; this continual change underlies the struggle for existence and ultimately natural selection. “Natural selection,” as we have seen, explains how it is that certain variations present in organisms are useful in the struggle for existence and reproduction and are therefore preserved, while others are less useful or deleterious in the struggle and are therefore eliminated. Given enough time, the accumulation of such individual variations can lead to the appearance of new species or the “multiplication of species.” “Common descent” describes the fact that these newly formed species and, by extrapolation, all life on earth share a common ancestor. Finally, “gradualism” describes the rate of evolution. Because natural selection works on slight individual variations that appear over the
course of generations, Darwin took it for granted that the time it takes for new species to evolve by natural selection is immense.

After laying out his “theory” of natural selection, Darwin largely spent the remainder of the *Origin* applying natural selection to various fields of biology ranging from embryology to paleontology. As the English philosopher and historian of science Michael Ruse has shown, Darwin gave the *Origin* this structure so as to make his theorizing conform to what the leading philosophers of his day thought was the proper way of constructing scientific theories. In particular, Darwin wanted his work to fit the model of “proper” science that the famous English astronomer John F. W. Herschel (1792-1871) and the English historian and philosopher of science William Whewell (1794-1866) had laid out in their writings. Darwin read, met, and admired both thinkers.

For Herschel, the goal of science was to find true causes (*causae verae*). In particular, he supported the use of arguments from analogy to establish whether something is a true cause. He argued that one can show that something is a *causa vera* by demonstrating that it is analogous to something else that is known to be a *causa vera*. As he wrote in his *Preliminary Discourse on the Study of Natural Philosophy* (1831):

> Here, then, we see the great importance of possessing a stock of analogous instances or phenomena which class themselves with that under consideration, the explanation of one among which may naturally be expected to lead to that of all the rest. If the analogy of two phenomena be very close and striking, while, at the same time, the cause of one is very obvious, it becomes scarcely possible to refuse to admit the action of an analogous cause in the other, though not so obvious in itself. For instance, when we see a stone whirled round in a sling, describing a
circular orbit round the hand, keeping the string stretched, and flying away the moment it breaks, we never hesitate to regard it as retained in its orbit by the tension of the string, that is, by a force directed to the centre; for we feel that we do really exert such a force. We have here the direct perception of the cause. When, therefore, we see a great body like the moon circulating round the earth and not flying off, we cannot help believing it to be prevented from so doing, not indeed by a material tie, but by that which operates in the other case through the intermedium of the string, - a force directed constantly to the centre. (Herschel 149)

Thus, because Darwin lacked evidence about the workings of natural selection in the wild, he turned to animal and plant breeders and argued for the existence of natural selection by analogy (Ruse, “Philosophy” 25).

Whewell, on the other hand, propounded a method of theorizing that has become famously known as a “consilience of inductions.” He formalized this idea in his book The Philosophy of Inductive Sciences (1840): “the evidence in favour of our induction is of a much higher and more forcible character when it enables us to explain and determine cases of a kind different from those which were contemplated in the formation of our hypothesis” (Whewell 1840). In turning to such disparate fields as embryology and paleontology, Darwin sought to adhere to Whewell’s consilient ideal by showing that natural selection was capable of explaining a surprisingly broad array of phenomena (Ruse, “Philosophy” 26-27).

Finally, it is worth noting that the philosophers’ influence even explains Darwin’s decision to incorporate Malthus’ “Iron Law of Population” into his theory of natural
selection. For Herschel and Whewell maintained that the best scientific theories are, like Newton’s law of universal gravitation, constructed using quantitative laws. Malthus had shown in his *Essay on the Principle of Population* (1798) that because human populations tend to increase at an exponential rate, human demand will outstrip food supplies that can increase only at an arithmetical rate. So formulated, Malthus’ principle of population gave Darwin the very law that he needed to argue deductively for the struggle for existence and ultimately natural selection itself (Ruse, “Philosophy” 11; 20).

**Note on the Language of Evolutionary Biology**

What follows is a history of the term “evolution,” with particular emphasis on how its English usage compares with that in Russian. So far I have used the word “evolution” and related words like “evolved” and “evolutionary” to describe Darwin’s ideas, without qualification. Such usage is, in fact, anachronistic because scientists were just beginning to use “evolution” to mean species change, during this period and within a century “evolution” would come to mean any genetic change. It is nevertheless standard practice among historians to use “evolution” and related words to denote speciation in discussions of this period. The core of Strakhov’s, Tolstoy’s, and Solovyov’s interests lay at the evolutionary emergence of humans as a species.

Although his name has since become synonymous with the theory of evolution, Darwin (1809-1882) actually never used the word “evolution” in the first edition of his *On the Origin of Species* (1859) though, as scholars have noted (Bowler, “Evolution” 103; Gould, “Revolution” 30), he did use the word “evolved” once. It was the book’s final word: “There is,” Darwin rhapsodized, “a grandeur in this view of life, with its

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several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved” (Darwin, *Origin* 490). Theories of species change, of course, had been proposed long before Darwin’s, and they had all gone by different names, including the “development hypothesis,” “transmutation theory,” and the theories of “species change,” of “organic change,” and of “organic succession,” to name a recent few.¹¹ Darwin himself preferred his own coinage: “descent with modification,” though few others shared this preference.

Historically, the word “evolution” had been used to denote not the transmutation of species, but to refer specifically to the Dutch entomologist Jan Swammerdam’s theory of embryological preformation, in which an embryo’s development was little more than an expansion and augmentation of preexisting parts (Richards, *Evolution* 5). When Darwin used the word “evolved,” however, as the historian of biology Peter J. Bowler has documented, he meant it in what was then a more general, vernacular sense of the word describing “a sequence of events in time, without reference to the concept of the unfolding of a preexisting structure of design” (Bowler, “Evolution” 102). Tying the word “evolution” to the transmutation of species was, rather, the doing of Darwin’s compatriot, the philosopher Herbert Spencer (1820-1903), whose use of the word “evolution” throughout the 1850’s and 1860’s changed the word’s meaning for the whole

¹¹ For more on theories of transmutation before Darwin, see Bentley Glass’ *Forerunners of Darwin, 1750-1859*. Baltimore: Johns Hopkins UP, 1968.
of the English-speaking world. In fact, Spencer’s efforts were so successful that Darwin himself even ended up using it, albeit reluctantly (Bowler, “Evolution” 110).12

Ironically, Darwin’s name has nevertheless come to be more closely associated throughout the world with the “theory of evolution” than with his proposed mechanism of evolutionary change – natural selection –, with transliterations of “evolution” appearing in such languages as Spanish, French, Italian, German, and Russian. The Russian transliteration of the word “evolution” – “evoliutsiia” – as a biological term has, as we will see shortly, a markedly different history from that of its English counterpart, for it was not the translation of Spencer’s works that helped the term gain currency in Russian. Rather, it was the infusion of new Russian translations of Darwinist works and the botanist Kliment Timiriazev’s translation of the 6th edition of the Origin, in particular, that the 1890’s saw that ultimately turned the terminological tides in favor of standardizing usage of “evoliutsiia” in Russia.

Early Usage of “Evoliutsiia” in Russian. – It is worth noting that the loanword “evoliutsiia” was used in Russia long before it acquired a biological meaning. Indeed, just as Bowler has noted that the word “evolution” could at the time also be used to denote a military maneuver in English (Bowler, “Evolution” 99), so “evoliutsiia” was used in Russian. The writer Andrei Nartov (1737-1813), for instance, wrote in his 1785 Tales of Peter the Great (Rasskazy o Petre Velikom):

The Sovereign, walking along the picture gallery in Mongshezir and admiring the pictures of the sea, stopped at one depicting four united fleets

12 Richard’s book grew out of a commissioned essay: “Evolution” in Keywords in Evolutionary Biology. The English anatomist Thomas Henry Huxley (1825-1895) undertook what is probably the first attempt to trace the history of the word “evolution” in English: “Evolution in Biology” in Encyclopedia Britiannica (1878). “Evolution in Biology” was then reprinted in Huxley’s 1896 Darwiniana.
-- the Russian, the English, the Danish, and the Dutch. [They had come together] because of the Swedish pirate ships on the Baltic Sea that were doing great harm to merchant ships, trying to destroy them, fleets which this monarch commanded in 1716 with great honor, doing different evolutions on the sea, and thus showing his skill. (Nartov)\textsuperscript{13}

The Russian poet Aleksandr Pushkin (1799-1837) described similar “naval evolutions” (“morskie evoliutsii”) in his unfinished “History of Peter the First” (“Istoriia Petra I”), begun in the late 1820’s (Pushkin 57).\textsuperscript{14}

At about the same time, the word “evoliutsiia” alternatively signified a series of movements in a non-military context. The Russian literary critic Apollon Grigor’ev (1822-1864), for example, wrote in his “‘Hamlet’ in a Certain Provincial Theater” (“‘Gamlet’ na odnom provintsial’nom teatre”): “The actor’s pose was like a painting, yet polished, and I was surprised by the fact that he appeared on stage with a cold because otherwise I could not explain to myself the incessant evolutions he was making with his handkerchief” (Grigor’ev 11).\textsuperscript{15} And seven years later, in 1852, Lev Tolstoy wrote in his novel \textit{Childhood}: “‘I was very impatient: I climbed up on my horse, looked at her between the ears and did various evolutions through the yard’” (Tolstoy, \textit{Detstvo} 27).\textsuperscript{16}

As we will see shortly, “evoliutsiia” would not acquire a biological meaning in Russian

\textsuperscript{13}“Государь, прохаживаясь по галерее картинной в Монгшезире и любуясь на морские картины, остановился при одной, изображающей четыре соединенные флота: российской, английской, дацкой и голландской — по случаю шведских разбойнических судов на Балтийском море, купеческим судам великий вред причиняющих, дабы их истребить, которыми флотами монарх сей в 1716 году командовал с превеликою честью, чиня на море разные эволюции, показывая в том свое искусство…” (Нартов)

\textsuperscript{14}“Потом ездил он в Гордервик и видел там такие же морские эволюции” (Пушкин 57).

\textsuperscript{15}“Поза актёра была живописна, но изысканна, и я удивлялся притом, зачем он явился на сцену с насморком, потому что иначе я не мог себе объяснить его беспрестанных эволюции с платком (Григорьев 11).”

\textsuperscript{16}“Я был в сильном нетерпении: взлез на свою лошадку, смотрел ей между ушей и делал по двору разные эволюции” (Толстой, \textit{Детство} 27).
until the late 1870’s, and it was not until the 1890’s that it would begin its rise on the path to linguistic domination as the leading word for “transmutation” in Russian.

Other Names for “Evolution” in Russian. - Certainly, as the historian of biology Boris Raikov demonstrated in his multivolume Russian Biologist-Evolutionists before Darwin (Russkie biologi-evoliutsionisty do Darvina) (1951-1959), there was no shortage of Russian scientists who speculated about the idea of transmutation,\(^1\) and, like their English analogues, they referred to the idea by various names. Such designations from before and after the publication of On the Origin of Species included: “razvitie” (“development.” Literally: “unfolding”) (Mechnikov, Outline 112; Strakhov, “Razvitie” 228; Chernyshevskii “Prilozhenie” 757), “izmenenie vidov” (“change of species”) (Strakhov, “Perevorot” 1; Korzhinskii 264), “prevrashchenie vidov” (“transformation of species.” Literally: “turning-again” or “turning over” of species) (Mechnikov, Teoriia 1), “preobrazovanie vidov” (“transformation” or “re-formation” of species) (“Darvin” 2), “transformizm” (Mechnikov, Ocherk 101), “pererozhdenie vidov” (“transformation” of species.” Literally: “rebirth of species”) (Strakhov “Poiavlenie 6”; Pisarev 43), “transmutatsiia” (“transmutation”) (Korzhinskii 261), and “protsess vidoizmeneniia” (“process of species change”) (Severtsov, “etnografiia” 19).

Among the pre-Darwinian Russian cohort that could be anachronistically called “evolutionists” were Mikhail Lomonosov (1711-1765), who spoke of the “preobrazhchenie velikoi prirody” (the “transformation of great nature”) (Lomonosov 90); Dmitrii Sokolov (1788-1852), Russia’s foremost 19\(^{th}\)-century geologist, who called it “pererozhdenie zhivotnykh” (“transformation of animals”) (quoted in Raikov 305);

\(^{1}\) For more on the history of pre-Darwinian “evolutionists” in Russia, see: Boris Raikov’s Russkie biologi-evoliutsionisty do Darvina. 4 vols. Moscow-Leningrad: AN SSSR, 1951–1959.
Karl Rul’e (1814-1858), a zoologist and ardent transformist, who often spoke of a gradual “razvitie” (Rul’e 76)\(^{18}\); and Nikolai Severtsov (1827-1885), a zoologist and future Darwinian,\(^{19}\) who referred to the theory in Russian variously as “vidoizmenenie” (“species change”) (Severtsov, “etnografiia” 19)\(^{20}\) “razvitie” (“development”) (Severtsov, “etnografiia” 32).\(^{21}\)

The word for “evolved” that the Russian botanist Sergei Rachinskii used in the 1864 translation of the *Origin* that he published without Darwin’s knowledge was the verbal form of “razvitie” (“development”) (Darvin, *O proiskhozhdenii* 387) (1864).\(^{22}\)\(^{23}\)

The first translation of the *Origin* in Russian could not, for that reason, make any claim to having the same historical continuity with the word “evolved” and therefore with the later theory of “evolution,” as Darwin’s work did in the English original. By the same token,.

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18 “В основание зоогнозии мы положим тот опытный факт, который лежит в основании всей нашей науки и который лежит в основании всех отдельных ее частей, факт, не подверженный ни малейшему сомнению: в природе, в мире явлений нет ничего, от начала существующего, все последующее образуется из повторения предыдущего с прибавлением нового, все образуется путем постепенного медленного развития” (Рулье 76).


21 “На этих данных и была основана теория постепенного развития организмов” (Северцов, “этнография” 32). Writing in French, Severtsov spoke of “la question de la fixité où de la variabilité des espèces” (Severtzow, “Notice” 436) and “la théorie de la generation des espèces” (Severtzow, “Notice” 437). The fact that he wrote scientific articles in multiple languages including French and Russian, combined with the fact that the variety of phrases from the above list all meaning “evolution” suggests that they were all translations of Western European terms and points to the low status of Russian as a scientific language. For more on Russian as a scientific language, see: Michael Gordin’s “The Table and the Word” in *Scientific Babel: How Science was Done Before and After Global English*, Chicago: University of Chicago Press, 2015.

22 “Есть величие в этом воззрении, по которому жизнь с ее разнообразными силами была вдохнута первоначально в немногие формы или лишь в одну; по которому, меж тем как земля продолжает кружиться по вечному закону тяготения, из столь простого начала развилась и до сих пор развиваются бесчисленные формы дивной красоты” (Дарвин, *О происхождении* 387).

23 As noted above, it was not until April 1867 that Darwin learned of the existence of a Russian translation of the *Origin*. A young Vladimir Onufrievich Kovalevskii (1842-1883) had informed Darwin: “Your former book, the “Origin of Species” is translated and printed some three years ago” (DCP, letter no. 5452). Before receiving that letter, Darwin had known only that Friedrich Rolle’s summary of his ideas had been translated into Russian (DCP, letter no. 5464).
Rachinskii also continued the pre-Darwinian tradition in Russia and abroad of referring to both embryological development and transmutation by the same word, “razvitie” or “development,” respectively.

Since Rachinskii’s translation, however, did nothing to produce a standardized term denoting the change of species, both scientists and laymen alike continued to use various terms for transmutation. For example, in the expositions of Darwin’s theory they published in 1864 following the appearance of Darwin’s *Origin* in Russian, the botanist and leading Russian Darwinist Kliment Timiriazev (1843-1920) used “razvitie” (“development”) (Timiriazev, “Darvin,” 59), while the radical literary critic Dmitrii Pisarev (1840-1868) used “pererozhdenie vidov” (“transformation of species”) (Pisarev 43). Frequently, the same writer would even use multiple phrases that meant the same thing. Nikolai Strakhov (1828-1896), for example, used “pererozhdenie vidov” (“transformation of species”) (Strakhov, “Poiavlenie” 6; “Priznaki” 166), “izmenenie vidov” (“change of species”) (Strakhov, “Perevorot” 1) and “razvitie” (“development”) (Strakhov, “Razvitie” 228). The zoologist and future Nobel laureate Il’ia Mechnikov, meanwhile, spoke of “transformizm” (Mechnikov, *Ocherk* 76), of a conviction in the “izmeniaemost’ organicheskikh form” (“mutability of organic forms”) (Mechnikov, *Ocherk* 76), and of the theory of progressive “razvitie” (development) (Mechnikov, *Ocherk* 104). The Russian scientific community would have to wait another two decades before the catalyst appeared that would standardize a term for “evolution” in Russian.

*Early Use of “Evoliutsiia” in Russian Science.* - The fact that “razvitie” (“development”) was used to convey both embryological development as well as the change of species is unsurprising given that even in England at the time that the *Origin*
was published Darwin’s theory had yet to become associated with the word “evolution.” As noted above, it was Spencer who popularized usage of the word “evolution” to mean transmutation in English. In Russian, however, his writings had no such effect. Spencer’s works were, of course, both translated and widely read in Russia, as the historian of science Michael Gordin has demonstrated (Gordin, “Spencer” 14). But as his works were brought to Russian readers, the individual preferences of Spencer’s translators came into play. For example, when Spencer’s 1852 essay “The Development Hypothesis” was translated into Russian in the 1860s, the word “development,” unsurprisingly, was translated as “razvitie” (“development”). Shortly thereafter, in 1870, his Principles of Biology (1864) appeared in translation, followed by his Principles of Sociology (1873) in 1876, and although Spencer had used the word “evolution” to mean transmutation in both of the English editions, neither of his Russian translators used a transliteration of it in their translations. Aleksandr Gerd, the translator of The Principles of Biology, translated the word “evolution” as “progress,” perhaps not unjustly given Spencer’s beliefs about biological progress (Spenser, Biologiia 245; 302), whereas the anonymous translator of The Principles of Sociology translated it as “razvitie” (“development”) (Spenser, Sotsiologiia 1). Hence, Spencer’s works could not have popularized the word “evoliutsiia” in Russian as they had done for “evolution” in English.

The translations of Darwin’s other works published in the late 1860s and early 1870s did not popularize “evoliutsiia” in Russian, either, for even when Darwin did, in fact, use the word “evolution” in the English original, his official Russian translator, the paleontologist Vladimir Kovalevskii (1842-1883), used “razvitie” (“development”)
generally to mean both “evolution” and “development.” Kovalevskii only used a transliteration of “evoliutsionizm” in his 1874 translation of *The Descent of Man* (Darwin, *Chelovek* 45). Nevertheless, by the late 1870s “evoliutsiia” began to appear in Russian print. The earliest example I have found comes in Kliment Timiriazev’s 1878 book *Zhizn’ rastenii* (*The Life of Plants*): “Darwin first pointed out the proximate causes, pointed out the more general laws of nature that result in gradual development, progress, or the *evolution* of the organic world” (Timiriazev, *Zhizn’* 230). In other places throughout the book, Timiriazev also used “evoliutsiia” interchangeably with “razvitie” (“development”) (Timiriazev, *Zhizn’* 230) and “obrazovanie” (“formation”) (Timiriazev, *Zhizn’* 222; 226; 233). His use of “evoliutsiia” is nonetheless a remarkable development for Timiriazev, who had used only “razvitie” (“development”) in his 1864 exposition of the *Origin* (Timiriazev, “Darvin” 59). Usage of “evoliutsiia” increased so much over the following years that by the 1880s, the radical critic Nikolai Chernyshevskii (1828-1889) complained in an unpublished sketch that the word “evoliutsiia” had recently begun being used in the sciences when “razvitie” (“development”) sufficed (Chernyshevskii, “prilozhenie” 981).

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24 When translating Darwin’s discussions of the theory of “evolution,” Kovalevskii invariably used “razvitie” (“development”) (Darwin, *Chelovek* 15; 44; 142; 149; 151; 153) (1874). However, he would use “usovershenstvovanie” (“improvement” or “perfection”) for the phenomenon itself (Darwin, *Chelovek* VII; 137) (1874).

25 Due to problems with the censor, Kovalevskii was forced to publish his translation under the physiologist Ivan Sechenov’s name.

26 “Дарвин первый указал на ближайшие причины, на те более общие законы природы, которые имеют результатом постепенное развитие, прогресс, или эволюцию органического мира” (230)

27 This was the same year that Huxley wrote his encyclopedia entry. See: “Evolution in Biology” in *Encyclopedia Britannica* (1878).

28 Chernyshevskii wrote: “Термин ‘эволюция’ вошел в употребление на память людей, которые теперь уже старики, но еще не самые старые из старицов: лет пятьдесят тому назад он был неупотребителен. Из этого учения пристрастились к нему заключают, что понятие, обозначаемое им, имеет совершенную новизну и произвело переворот в науке своим применением к разъяснению фактов. На самом деле это не совсем так. То понятие, которое выражается ныне словом эволюция,
Usage of “Evoliutsiia” Standardized. - By the 1890s, usage of “evoliutsiia” had become increasingly widespread. Because Darwin had died in 1882 and had not had a major work published since The Expression of the Emotions in Man and Animals had appeared in 1872, the renewed discussion of evolution in Russia cannot be attributed to the publication of new work of Darwin’s. Rather, it was the retranslation of Darwin’s Origin together with translations of other Darwinist works that helped “evoliutsiia” to gain a wider currency in Russia. For example, in 1893, Timiriazev published his translation of T. H. Huxley’s “Evolution and Ethics” (“Evoliutsiia i etika”), which was followed by the 1896 joint translation of the Origin that he undertook with the zoologist and fellow Darwinist Mikhail Menzbir, who would, in turn, translate Alfred Russell Wallace’s Darwinism (1889) in 1898. They both used “evoliutsiia” in their translations, though in different ways. 29

In his translation of T. H. Huxley’s Romanes lecture titled “Evolution and Ethics,” published in Russian Thought (Russkaia mysl’), Timiriazev’s usage of the words “evoliutsiia” and “evoliutsionnyi” (“evolutionary”) was not confined to the process of evolution (Gioksli, 109; 110; 112; 114; 117; 125) or the theory of evolution (Gioksli, 112; 116; 120; 123; 125; 128). He also used these terms to denote the biological evolution of a particular trait or adaptation, namely, of the “aesthetic sense” (Gioksli 125), as well as what Huxley contended was the cultural evolution of society (Gioksli 126) and of ethics (Gioksli 125).

29 Darwin’s The Descent of Man was retranslated in 1891 by G. Blagosvetlov. He also used “evoliutsiia” (Darvin, Chelovek 219) (1891).
Three years later, in their translation of the *Origin* Timiriazev and Menzbir used “evoliutsiia” invariably to refer to both the theory and process of evolution (Darvin, *Proiskhozhdenie* 157-158; 168; 218; 479). But because Darwin, unlike Huxley, did not write about the particular evolutionary path that an adaptation took, there was no occasion for either translator to write about the evolution of anything.30

Finally, in his translation of Alfred Russell Wallace’s *Darwinism* (1889), Menzbir invariably used “evoliutsiia” for Wallace’s discussions of the theory of evolution (Uolles 117; 168; 512; 569; 570; 577; 578; 593; 616); and he used it for the most part when Wallace referred to the process of evolution (Uolles 2; 184; 578; 583; 597). There were, however, some regular exceptions. For example, whenever the emphasis of Wallace’s discussion was on the discrete steps of evolution, Menzbir translated “evolution” as “evoliutsiia” (Uolles 616; 727), whereas whenever Wallace emphasized the continuity between these steps, Menzbir translated “evolution” as “razvitie” (“development”) (Uolles 603). Ultimately, Menzbir did not use “evoliutsiia” for as wide a range of contexts as Wallace had, and despite the substantial overlap between Wallace’s and Menzbir’s usage, when Wallace described, for example, the “evolution” of physical conditions, Menzbir translated “evolution” as “smena” (“shift” or “change”) (Uolles

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30 Although Darwin used the word “evolved” repeatedly in the sixth edition of the *Origin*, Timiriazev rendered the word “evolved” variously in Russian. When Darwin spoke of the stage of evolution of a particular organ, Timiriazev used “razvivat’sia,” (“to develop”) (Darvin 150); when Darwin wrote about the fact that species often evolve gradually, Timiriazev used “obrazovat’sia” (“to form”) (Darvin 158) once, though on the following page he used “izmeniat’sia” (“to change”) (Darvin 159) for a nearly identical phrase. For the book’s very last word, Timiriazev broke with the tradition Rachinskii had set and used “voznikat’ ” (“to arise”) (Darvin 327) to convey Darwin’s rhapsody about the ongoing evolution of various forms.
Following the publication of works such as these, scientists including Mechnikov and the botanist Andrei Famintsyn (1835-1918) switched to using “evoliutsiia” (Mechnikov, “Prazdnestvo” 225-227; Famintsyn, “Simbioz” 1). By the 1930s, usage of “evoliutsiia” was universal among the leading evolutionary biologists and geneticists of the day including: Iurii Filipchenko, 32 Nikolai Dubinin, 33 Sergei Chetverikov, 34 Aleksandr Serebrovskii, 35 Lev Berg, 36 Aleksei Severtsov, 37 and Georgii Gauze. 38 It had even come to be used in non-biological contexts, just as “razvitie” (“development”) had

31 “Этот сознательный выбор, пользующийся преимуществами последовательной смены физических условий, и может считаться производителем способнейшего, тогда как естественный подбор представляет собой тот трибунал, суду которого подвергаются все результаты ускоренного роста” (Уоллес 647).

32 See, for example, Iurii Filipchenko, Izmenchivost’ i evoliutsiia (1915): “раз простые вариации оказываются неподходящим материалом для объяснения хода эволюционного процесса, мы должны теперь обратиться к двум другим типам индивидуальной изменчивости – к мутациям и комбинациям” (Филипченко 72).

33 See, for example, Nikolai Dubinin, “Genetiko-avtomaticheskie protsessy iikh znachenie dlia mekhanizma organiceskoi evoliutsii” about “[эволюционный процесс]” (Дубинин 463), “механизм органической эволюции” (Дубинин 463), “[эволюция] организмов” (Дубинин 465).

34 See, for example, Sergei Chetverikov’s seminal article “O nekotorykh momentakh evoliucionnogo protsessa s tochki zreniia sovremennoi genetiki”: “Настоящая статья и задается целью выяснить некоторые вопросы эволюционного учения в связи с нашими современными генетическими понятиями” (Четвериков 171).

35 See, for example, Aleksandr Serebrovskii, “Sovremennoe sostoianie teorii mutatsii”: “Не менее интересно и отрицательное его решение, так как при намечаемом разочаровании в представлении о постепенном ходе эволюции” (Серебровский 1254).

36 See, for example, Lev Berg, Nomogenez, ili evoliutsiia na osnove zakonomernostei: “Процесс эволюции состоит сплошь в образовании новых признаков” (Берт 81).

37 See, for example, Aleksei Severtsov, Etiudy po teorii evoliutsi: individual’noe razvitie i evoliutsiia: “основным тезисом эволюционной теории является положение, что современные нам животные… произошли путем ряда постепенных и закономерных изменений от иначе и в общем более просто организованных предков, живших в прежние геологические эпохи” (Северцов 2).

38 See, for example, Georgii Gauze, “Problema stabiliziruushchego otbora”: “В ту эпоху, когда производились эти наблюдения, считалось само собой разумеющимся, что морфозы или модификации с течением времени превращаются в наследственные различия и что искусственное создание модификаций является тем самым экспериментальным воспроизведением эволюционного процесса” (Гаузе 193).
before. For example, in 1907 the novelist Andrei Belyi described the “technical evolution of art” (“tekhnicheskaia evoliutsiia iskusstva”) (Belyi 451).

Conclusion. – Unlike the changing translation of “natural selection” in Russian, the fact that “evoliutsiia” superseded all other alternative terms as the standard term for “evolution” was not a matter of linguistic accuracy. Just as “transmutation” could just as easily have been used to mean “evolution” in English, so “razvitie” (“development”) or “izmenenie vidov” (“change of species”) could have been used in place of “evoliutsiia.” The introduction of “evoliutsiia” did, however, not only help to differentiate between embryological and transmutational development, just as the German evolutionary biologist Ernst Haeckel had done by introducing the terminological distinction between ontogeny and phylogeny. It also enabled evolutionary biologists to discuss the evolution of individual parts of an organism – traits--whereas earlier phrases meaning “evolution” such as “izmenenie vidov” were used specifically to mean speciation.

The history of the Russian loan word “evoliutsiia” thus stands in stark contrast to that of its English counterpart. For although both had been used prior to the appearance of Darwin’s theory, in non-biological contexts, the semantic shift that caused the word to

39 For more on the history of the translation of natural selection, see, Brendan Mooney’s “Pobeda Klimenta Timiriazeva kak perevodchika Darvina.”

40 The explanation for how usage of “evoliutsiia” came to be standardized rests, instead, on the material dissemination of the works that standardized it. For not only did Timiriazev’s group translation have substantial print-runs –his first edition in 1896 ran 8,000 copies (Vavilov 598) as opposed to Rachinskii’s third edition published in 1872 with a print run of 1,200 copies – but it would also ultimately be the only text to serve as a foundation for later revised editions of the Origin in Russian (Konashev 163). New editions of Timiriazev’s translation appeared in 1898, with a print run of 5,000 (Vavilov 599) and again in 1907 (Guskova 10). Following Timiriazev’s death in 1920, the evolutionary biologist Nikolai Vavilov assumed stewardship of Timiriazev’s translation and reprinted it in 1935, with a print-run of 35,000 and again in 1937, with a print-run of 30,000 (Guskova 11). Usage of “evoliutsiia” was also further reinforced by textbooks because, for example, two of the three leading biology textbooks published between 1905 and 1909 used “evoliutsiia.” Thus, it was owing to the translation and retranslation of Darwinist works in the 1890s that promulgated usage of “evoliutsiia” in Russia and thereby set a precedent for usage in textbooks and by future scientists, ensuring its continued popularity.
acquire a biological and specifically transmutational meaning in Russian was a result of not Spencer’s but Darwinist works including Darwin’s own sixth edition of the *Origin*, that popularized, standardized, and spread the word “evoliutsiia” in Russia.

Today “evolution” denotes a change in allele (alternative forms of a gene) frequencies in a population from one generation to the next or, to use Darwin’s own terminology, a change in the proportion of small heritable variations in a population from one generation to the next. “Evolution” thus no longer entails speciation. Such small heritable variations did not in themselves concern Strakhov, Tolstoy, or Solovyov, but rather what the moral implications of the sustained accumulation of such variations were for humans. The history of the term “evolution” therefore highlights the fact that their concerns were historically attuned to the science of the time.
CHAPTER TWO
NIKOLAI STRAKHOV: ORGANICISM AND ANTI-DARWINISM

Introduction

As a subject of historical study, Nikolai Nikolaevich Strakhov (1828-1896) has traditionally been viewed both as a figure devoid of independent importance, whose life takes on historical value only in relation to his friendships with the literary geniuses Lev Tolstoy and Fyodor Dostoevsky (Gerstein 179; 37) and as an outlier for the beliefs he held that failed to dovetail with those typical of the conservative, Slavophile circles he frequented (Gerstein x-xi). First and foremost, Strakhov is known for the work he did as a journalist. In his essays he concerned himself with mostly spiritual and philosophical questions, though, unlike his fellow Slavophiles, who were unequivocally Christians, Strakhov carried out his quest for spiritual fulfillment chiefly in developing his own personal philosophy of holism.

But in the history of science in Russia, and in the Russian reception of Darwinism in particular, Strakhov’s independent significance is undeniable. For a Slavophile, Strakhov was uncharacteristically knowledgeable of Western science because before working as a journalist, he had, in fact, received training in zoology (Rogers, “Opposition” 498). Thus, as it turned out that Darwinism was promulgated primarily on

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41 Though the term was initially used as a pejorative, it came to denote, as the Polish historian Andrzej Walicki has noted, “a group of ideologists belonging to the conservative nobility, whose outlook became formed in the late 1830’s in opposition to the trend known as ‘Westernism.’ Moreover, Slavophilism denoted in this case not so much a feeling of solidarity with brother Slavs as a cultivation of the native and primarily Slavic elements in the social life and culture of ancient Russia” (Walicki 92).
the pages of the “thick” literary and sociopolitical journals, Strakhov found himself ideally situated to take part in the ensuing polemics. These journals, therefore, present a window into Strakhov’s apparent transformation from a Darwinist in the 1860’s to a leading anti-Darwinist by the 1870’s, a transformation brought about by Strakhov’s changing understanding of the role of teleology and progress in Darwin’s theory of natural selection. The goal of this chapter is to fill in a gap in the scholarship on Strakhov’s science-related writings by providing the first comprehensive history of Strakhov’s writings on Darwin’s theory and a fuller account of his transformation. In particular, I will examine the role that Strakhov’s anthropocentrism played in determining which parts of Darwinism he could wholeheartedly accept.

1828-1859: Strakhov’s formative years

Nikolai Strakhov was born in 1828 in the provincial Ukrainian town of Belgorod, near Kharkiv. His mother hailed from Ukraine’s petty gentry, while his father worked as a clergyman and lecturer at the local seminary (Nikol’skii 215). Strakhov trained briefly as a mathematician at Saint Petersburg University, but within a year transferred for financial reasons to the Chief Pedagogical Institute, where he could receive an education at the state’s expense in exchange for ten years of service as a teacher after graduation (Gerstein 9). He completed his course of study in 1851, whereupon he spent a year in Odessa teaching physics and mathematics at a gymnasium before being transferred to Saint Petersburg to teach natural history for the remainder of his service (Nikol’skii 234-235).

42 There is a discrepancy in the reported duration of obligatory service, but the error appears to be Nikol’skii’s. Although he wrote that it lasted eight years (Nikol’skii 234), on the following page he cites an autobiographical sketch of Strakhov that is now lost, in which Strakhov wrote “After ten years of service, I not only served out the whole term for a state education, but also upon resignation received a year’s salary of 630 rubles” (Nikol’skii 235)
In Saint Petersburg Strakhov eventually began graduate work in zoology (Gerstein 10), receiving a master’s degree in 1857 after completing his thesis on mammalian carpal bones. In his thesis “On the Wrist Bones in Mammals” (“O kostiakh zapiast’ia mlekopitaiushchikh”) he demonstrates a familiarity with recent scientific developments in Western Europe, as well as his knowledge of an array of scientific authorities including the French comparative anatomist Georges Cuvier, the English comparative anatomist Richard Owen, the German physiologist Johann Blumenbach, the Dutch zoologist Jan van der Hoeven, the French anatomist Henri Blainville, and the German anatomist Johann Meckel, the Younger.

And yet, as rumor has it, Strakhov bungled the oral defense of his thesis and was, as a result, unable to obtain the position he sought as a university chair in either Moscow or Saint Petersburg. He managed to secure work at the Journal of the Ministry of Public Education, where, to supplement the income he received from teaching, he started writing the journal’s monthly science column (Gerstein 15). Thus began what would be an abiding career in journalism.  

1860: Introducing Russians to Darwin

Given Strakhov’s relatively modest scientific credentials, it may come as a surprise that he is the one who brought word of Darwin’s Origin to Russia. In England, Darwin’s friend, the eminent geologist Charles Lyell (1797-1875) had played that role. Lyell gave a public lecture to the British Association for the Advancement of Science in September of 1859, two months prior to the publication of Origin, in which he announced Darwin’s forthcoming book and declared his support for Darwin’s ideas (Browne 80).

For, as Lyell remarked, it appeared to him that Darwin had “succeeded, by his investigations and reasonings, in throwing a flood of light on many classes of phenomena connected with the affinities, geographical distribution, and geological succession of organic beings, for which no other hypothesis has been able, or has even attempted, to account” (Lyell 95). Unsurprisingly, in a lecture titled “On the Occurrence of Works of Human Art in Post-Pliocene Deposits,” the details that Lyell could legitimately provide about Darwin’s book were scant. No mention was made of Darwin’s proposed mechanism of evolutionary change.

*On the Origin of Species* was published in late November of 1859, a full two months before Strakhov would publish the Russian translation he made and annotated of Lyell’s English-language report in January 1860, a publication that Strakhov called “the Appearance of Man on Earth” (“Poiavlevnie cheloveka na zemle”). Nevertheless, he could not provide any more details than Lyell had four months before, because Strakhov had not read the *Origin* yet. In fact, it appears that Strakhov may have read the *Origin* for the first time in 1862, as it was the publication of the French edition in the summer of 1862 that led Strakhov to write his first detailed exposition of Darwin’s work, “Bad Signs.”

Strakhov began his commentary in “the Appearance of Man on Earth” by noting, “These words, belonging to a naturalist of such authority as Lyell, and the anticipated work of such a scientist as Darwin, have the greatest importance” (my italics) (6). And, indeed, the title Strakhov chose for his article “The Appearance of Man on Earth” certainly captured the focus of Lyell’s report, but as Strakhov’s commentary makes clear,  

44 What Strakhov knew of Darwin’s scientific reputation and how he learned of it is unclear.
he was, in fact, primarily interested in Darwin and what had become known in the English-speaking world as “that mystery of mysteries”: the origin of species (Darwin, *Origin* 1). Thus, he sketched for his readers the break that Darwin’s work was making with the contemporary discourse on speciation, one that was largely and had long been dominated by anti-transformism:

Actually, until now the popular, typical views of naturalists have been against the theory of the transformation of species. Cuvier’s authority was a support for this contradiction. Strict empiricists, people who don’t leave the bounds of the facts given to them, are always the most daring theoreticians. Beyond the facts they are prepared to accept anything, prepared to imagine the greatest marvels. *The fixity of species* was one such marvel. (6-7)⁴⁵

In other words, Strakhov attributed, not without a hint of irony, the enduring place of anti-transformism to naturalists, who in their adherence to a strict empiricism, had failed to show the same restraint in formulating theories as they had in gathering facts. One such empiricist was the German paleontologist H.G. Bronn, who had recently received an award from the French Academy of the Science for his submission to its prestigious essay competition (6-7).⁴⁶ After quoting part of Bronn’s submission at length, Strakhov added that he was unable to see why the “completely unknown force” that Bronn postulated was “incompatible with the transformation of species, with the theory Darwin adopted. It is generally obvious that Bronn is in this instance abusing the

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⁴⁵ All unattributed translations of Strakhov are my own.
scientific word *force*. After noticing some phenomenon, we still do not have the right to now presume that it is the product of some *special force*” (8).

Strakhov then likened the force that Bronn hypothesized to vital force, which Strakhov concluded, as he had in his master’s thesis, was an inadmissible hypothesis (Strakhov, “Wrist Bones” 8-9). To Strakhov, this force seemed no solution at all, but rather a way to avoid answering the question. He preferred, instead, what he took to be Darwin’s method, a kind of epistemological reductionism. “According to Darwin,” he wrote, “the transformation [of species] takes place by the same forces that are at work now. This here is an explanation, namely the subsuming of certain phenomena under other more well-known ones” (8). That is, Strakhov praised Darwin for the method he used - extrapolating that species are produced by the same forces as varieties are, rather than postulating some special force to explain the origin of species. Admittedly, his impression of Darwin lacked substance, as he knew only what little Lyell had said in his report. According to Lyell, Darwin had come to the conclusion that “those powers of nature which give rise to races and permanent varieties in animals and plants, are the same as those which, in much longer periods, produce species, and, in a still longer series of ages, give rise to differences of generic rank” (Lyell 95). Thus, it comes as no surprise that in the years to come Darwin would be the subject of criticism like that made of Bronn.
1862: Strakhov’s Encounter with Darwin’s Theory and a Case of Mistaken Identity

By the time Strakhov wrote about Darwin’s theory again, in November of 1862, he appears to have read the *Origin*. He had begun working at the Dostoevsky brothers’ new journal *Time (Vremia)*, a short-lived Slavophile publication. As its editorial board had declared in its advance notice, the goal of their ideological program was to bring about a reconciliation between the Russian peasantry and the educated classes, as they had, since the time of Peter the Great, become overly Westernized and lost touch with their native soil (“pochva”) (*Biografiia* 177-180).

The article Strakhov published in *Time* was his most substantial treatment of Darwinian theory yet and thus serves as a point of comparison for his conversion to anti-Darwinism. He called this next article “Bad Signs” (“Durnye priznaki”). It is worth noting that the praise he expressed for Darwin no longer went without qualification, as it had when his knowledge of Darwin was based solely on Lyell’s report. Indeed, as the late historian of science Alexander Vucinich points out, Strakhov acknowledged that “Darwin's theory did not answer all the intricate questions of biological evolution, [but] it was built on sound foundations” (Vucinich 19-20). But the title Strakhov gave his article, together with the titles of the English, German, and French editions of the *Origin* that he listed at the top of the page, was a misnomer, because overall his review of Darwin was favorable. In fact, Strakhov’s brief exposition of the *Origin* apparently showed him to be an exceptionally orthodox Darwinian.47

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47 Even the English comparative anatomist Thomas Henry Huxley and the English co-founder of natural selection Alfred Russell Wallace – both friends of Darwin and ardent, self-styled *Darwinians* – did not hold as orthodoxly Darwinian views as Strakhov apparently did. As Michael Ruse wrote of his disappointing
Strakhov described Darwin’s book as a “great revolution,” noting that Darwin had dealt the final blow to the “the metaphysical view of fixity of things” (Strakhov, “Bad Signs,” 165) that had persisted for so long in the natural sciences.\footnote{Strakhov’s transformation into an anti-Darwinian is often explained by an appeal to his allegedly long-standing metaphysical beliefs, but, as we see here, Strakhov, in fact, praises Darwin for removing a metaphysical view from the sciences. See Vucinich, for example, “Strakhov greeted Darwin’s theory as a strong addition to science and a modern world view. Darwin, in his opinion, made two revolutionary contributions to biology and the modern world outlook: he made biology a solid science based on a historical view of nature, and he brought an end to the reign of the metaphysical view of organic nature” (Vucinich 19-20); also, see E. A. Antonov: “Strakhov was in complete agreement with Darwin in his fight against the metaphysical conception of the fixity of species” (Antonov, “Otsenka” 47).} In particular, Strakhov called attention to the fact that Darwin had untethered the natural sciences from the essentialist species concept, writing:

In his book Darwin gathered a multitude of facts proving the mutability of species. With time we hope to speak more on this subject; for now we will limit ourselves to just the results. Darwin found that species pass from one into another, that they gradually grow out of one form into another. Thus, from the descendants of one and the same plant, in various localities, under various conditions, over a long succession of generations, there may arise a few different plants. Various species of plants and animals arose gradually as a result of just such a divergence of one form into a several new ones. Organisms never produce their like in the exact sense of the word: children always differ from their parents, nor are they entirely similar to each other. It is from the gradual accumulation of these
differences over the course of many generations that all of the diversity of the animal and plant kingdoms arose. (Strakhov, “Bad Signs” 166)

Although he offered nothing but praise for Darwin for having established the mutability of species, Strakhov considered Darwin’s true contribution to be his discovery of one of the mechanisms of evolutionary change, or, what Strakhov then called “the theory of the transformation of species” (“pererozhdenie vidov”). “It takes on its full weight with Darwin only because he succeeded in finding the properties of one of the laws by which the change of species occurs. The law that he found is called the law of natural selection or of vital competition” (my italics)(Strakhov, “Bad Signs” 166).

Strakhov thus appears to have accepted the five most central components of Darwin’s theory of evolution by natural selection, as laid out in the introduction. That is, Strakhov accepted the following aspects of Darwin’s theory: evolution as such, evolution by common descent, the gradualness of evolution, the multiplication of species, and, finally, natural selection.

Evolutionary Progress and Evolutionary Ethics

Darwin and Strakhov also shared a belief in evolutionary progress and for both of them this notion was inextricably tied to human evolution. Admittedly, Darwin had, to all appearances, left the subject of human evolution virtually untouched in the Origin, saying only “light will be thrown on the origin of man and his history” (Darwin, Origin 488). But as Michael Ruse has noted, by the time he was writing the Origin, Darwin was struggling to “preserve—or, rather, strengthen—the notion of advance, while at the same time stressing even more the tree-like nature of his evolutionary thought,” and ultimately, he offered “what we might call relative or comparative progress” (Ruse, Monad 151). As
a result, Darwin ended up making an implied, unsubstantiated argument in the *Origin* that humans represented absolute evolutionary progress (Ruse, *Monad* 152). Unlike Darwin, though, Strakhov, for some reason, showed no such hesitation on the question of evolutionary progress in humans, writing:

> For our progress and development we acted of course no worse than the plants and animals. We reproduced enough and constantly led a bitter struggle not only for the means of existence, but even for other benefits. If one looks at the matter a little more attentively, then one will easily be convinced that this struggle was for us even more severe, diverse, and complex than it can be for the animals and plants. We were always subjected to the greatest *struggle for existence* and the law of *natural selection* constantly found the fullest application. The strong crushed the weak, the rich the poor, and the greatest benefit was derivable from the slightest advantage in this battle, a benefit that it alone could receive. Victims perished by the many. People for whom there was no place at the feast of life, one way or another ought to have quit the field of battle. Thus, the victors of life and the beneficiaries always remained the *naturally selected (elected)* and the progress made in improving the human race proceeded quickly and unceasingly. (Strakhov, “Bad Signs” 170)

> It is worth noting, though, that when he spoke of Darwin’s theory, the language Strakhov used was not quite the same as Darwin’s. Strakhov called “natural selection”

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49 As Peter J. Bowler has written, “Many modern scientists are reluctant to concede that Darwin was a progressionist, because they themselves reject the concept of progress as being too value laden, and there is a temptation to assume that the founder of the movement shared our own perception of the theory…Most historians now accept that Darwin cannot be seen as a nonprogressionist in the modern sense” (Bowler, *Evolution* 146).
the “law of natural selection” (“zakon estestvennogo izbraniia”), and he called the struggle for existence the “law of vital competition” (“zakon zhiznenoi konkurentsii”) (Strakhov, “Bad Signs” 166). Certainly, Strakhov’s rendering of “natural selection” is not an unreasonable translation. But his translation of “the struggle for existence” is less effective; indeed, when the first Russian edition of the Origin was published in 1864, the official translation of “the struggle for existence” was a literal rendering: “bor’ba za sushchestvovanie” (Darvin, Proiskhozhdenie 49). Hence, Strakhov was probably translating not from the English original, but directly from Clémence Royer’s June 1862 French translation of the Origin. Royer had translated “natural selection” as “élection naturelle” (natural election) and “the struggle for existence” as “concurrence vitale” (vital competition) (Darwin, De l’Origine LI; 114). Furthermore, she frequently referred to natural selection as a law (Darwin, De l’Origine LI; 116). Strakhov, therefore, appears to have made quite literal translations of Darwin’s terminology from the first French edition of the Origin.

Darwin, however, was not satisfied with Royer’s translation of the Origin, and for that reason, he worked with her to make improvements in the second edition of her translation. In particular, Darwin was frustrated by her translation of the subtitle of the Origin: “by the means of natural selection or the preservation of favoured races in the struggle for life” (Harvey 76). In the first French edition, Royer had rendered it: “or on the laws of progress in organisms” (“ou des lois du progress chez les êtres organisés”). But Royer had not only taken liberties in her translation of the work’s subtitle, in fact, she

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50 It is worth noting that the “principle of natural selection” had, in fact, already been translated as the “law of natural election” (“zakon estestvennogo izbraniia”) (828) in an anonymous review article “estestvennoe izbranie (natural selection) v chelovecheskikh porodakh” (1860) in The Herald of the Natural Sciences (Vestnik estestvennykh nauk), published nearly two years before the publication of Royer’s translation, though no mention was made of the struggle for existence.
also made it clear that she had no reservations about the subjects of human evolution and evolutionary progress and spent nearly fifty pages in her preface detailing what she believed to be the social implications of Darwinism. Hence, given the fact that Darwin had shied away from writing about the topic of evolutionary progress, it was likely Royer’s preface that led Strakhov to write about it so overtly.

Darwin and Strakhov were also both alarmed by Royer’s introduction, albeit for different reasons. Darwin was concerned about how Royer had removed the qualifications Darwin had made about the confidence he had in certain claims (Harvey 68), whereas Strakhov was most disturbed by her evolutionary ethicizing and for that reason he decided to write “Bad Signs,” devoting the second half of his article to dissecting Royer’s social theory rather than Darwin’s own work. Because of this statement, Strakhov is generally considered to be the first Russian to protest what would come to be known as “Social Darwinism” (Gerstein 156; Rogers, “Opposition” 498-499; Todes 40; Snetova, “uchenie” 46; Antonov, “Otsenka” 46-47; Vucinich 19-20). 51

Strakhov did not object to Royer’s evolutionary ethics because he believed that humans were not animals or that they were not subject to natural selection. As noted above, Strakhov did consider man superior to the plants and other animals (Strakhov, “Bad Signs” 170). But he did not believe man to be exempt from the workings of natural

51 Linda Gerstein was the first to contend that Strakhov was the first Russian to protest Social Darwinism avant la lettre, in her biography Nikolai Strakhov (1971). More recently, Nina V. Snetova has speculated that Strakhov may, in fact, have been the first in the world to protest Social Darwinism (Snetova, Filosofia 186). Both of their claims remain uncertain, however, as they depend on what is meant by “Social Darwinism” and whether Royer was actually a Social Darwinist, a point on which Royer scholars are divided. See Joy Harvey’s “Afterword: Clémence Royer and Her Biographers” “Almost a Man of Genius”: Clémence Royer, Feminism, and Nineteenth-Century Science (1998) for a review of the literature. As Harvey notes there, it was, in fact, Royer’s belief in Lamarckian evolution that drew her to Darwin’s work in the first place, but she was also influenced by the social evolutionist Herbert Spencer (1820-1903). Hence, the fact that Royer’s belief in a perfecting drive in evolution can be found throughout her preface and commentary in the translation makes her status as a social evolutionist or evolutionary ethicist, as opposed to a social Darwinist, uncontroversial.
selection. In fact, he went so far as to claim that the struggle for existence was greatest among humans and had thereby resulted in a degree of evolutionary progress in humans that was proportionate to the intensity of the struggle for existence that had occasioned it.

Rather, what Strakhov objected to most in Royer’s introduction was that she appealed to Darwin’s theory of evolution to form a basis for a naturalistic ethics. Strakhov contended, to the contrary, that humans knowingly set for themselves “another law, another norm, another ideal than the laws and ideals that nature follows. We knew that we were breaking with nature and frequently complained about its resistance because it was not easy to overcome” (Strakhov, “Bad Signs” 170). To all appearances a committed Darwinian, Strakhov accepted that man was the product of evolution. He may even have been able to accept that human behavior could be explained by nature. But he could not accept Royer’s ethical program advocating that humans should follow nature’s example (Strakhov, “Bad Signs” 172). Rather, he believed that there were limits to what science can do (Gerstein 155-56; Rogers, “Opposition” 498-499; Todes 40): “in the present case Mademoiselle Royer attributes to Darwin's theory much greater importance and knowledge than it actually has” (Strakhov, “Bad Signs” 171). And in so doing, by contending that humans deliberately do not follow the ethical example set by nature, Strakhov drew an important ethical distinction: simply because a behavior is naturally occurring, it is not therefore necessarily a good behavior.

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52 Royer would later argue that she herself did not advocate such a program, but was only illustrating possible implications of Darwin’s theory (Harvey 78); nevertheless, Gerstein, Rogers, and Todes agree that Strakhov did not think that formulating ethical prescriptions was within the purview of scientific knowledge (Gerstein 155-156; Rogers, “Opposition” 498-499; Todes 40).
Strakhov was certainly not the first to draw such a distinction.\textsuperscript{53} \textsuperscript{54} Darwin’s “bulldog,” the British anatomist Thomas Henry Huxley (1825-1895), would famously draw the same distinction in his 1893 Romanes lecture, sounding what Michael Ruse has labelled “a trumpet call to the dismissal of Spencerian-type evolutionary ethicizing” (Ruse, “Introduction” xxx).\textsuperscript{55} Huxley proclaimed, “Cosmic evolution may teach us how the good and the evil tendencies of man may have come about; but, in itself, it is \textit{incompetent} to furnish any better reason why what we call good is preferable to what we call evil than we had before” (my emphasis)(Huxley, \textit{Ethics} 80). That is, facts about human evolution only describe the origin of human moral sentiments; they cannot in and of themselves justify ethical conclusions.

Strakhov finishes making this point by observing that the concept of moral equality transcends biological traits, and is founded not on being biologically identical, but on a universal human dignity:

Already before the appearance of Darwin's book it was noted that if one looks at people as animals, then between them there exists much inequality. It was rightly noted that people differ among themselves by weight, by height, by fullness, by

\textsuperscript{53} For example, the Scottish philosopher David Hume (1711-1776) had drawn a similar distinction in his \textit{A Treatise of Human Nature} (1738). In 1903 the English philosopher George Edward Moore (1873-1958) would refer to the distinction Strakhov made as the “naturalistic fallacy” in his \textit{Principia Ethica} (1903). Such interpretations of Hume and Moore are standard; however, they remain the subject of controversy. See, for example, Max Black’s “The Gap Between ‘Is’ and ‘Should’” in \textit{The Philosophical Review}, Vol. 73, No. 2 (April, 1964): 165-181.

\textsuperscript{54} Whether Strakhov was, in fact, familiar with Hume’s work at the time of his writing “Bad Signs” is uncertain. Much of the journalistic writing Strakhov did at this time, which was collected and published in \textit{The World as a Whole} (1872), indicated a general familiarity with philosophers ranging from Plato, Aristotle to Locke, Descartes, and Hegel. Thus, it is likely that he knew of Hume, but the earliest mention that I have found of Hume in Strakhov’s writings, attesting to such familiarity appears in the late 1872 in the preface Strakhov wrote to his translation of the French historian Hippolyte Taine’s \textit{De l’Intelligence} (1870) titled “On the purely-empirical method” (“O chisto-empiricheshkom metode”).

\textsuperscript{55} As John van Wyhe recently showed in “Why there was no ‘Darwin’s Bulldog,’” Huxley’s nickname did not gain currency until after Huxley’s death.
leanness, by muscular strength, by skin color, by a greater or lesser keenness of
the senses and even by a greater or lesser intelligence. If the idea of the equality
of people existed despite these and other, even more important differences, then
this equality was recognized by no means in a zoological sense, but from the point
of view of something completely special, strange, mysterious, secret: people think
that they are equal precisely as people, and not as animals. This mark of human
dignity belongs to everyone alike, a sign seemingly elusive, immeasurable and not
definable by any clear properties. It was, however, so important, so great and
essential in people's eyes that it concealed all of the obvious differences that
separate the most ignorant of negroes from the most educated of Europeans.
(Strakhov, “Bad Signs” 171)

Strakhov ended his article by drawing his readers’ attention to the national origin
of Royer’s evolutionary ethics, to a “curious fact of Western-European education”
(Strakhov, “Bad Signs” 172). For him evolutionary ethics was a European phenomenon.
It was likely that Strakhov had, for that reason, come to title his article “Bad Signs,” for it
was just such visions of ethical naturalism that Strakhov believed to be indicative of a
civilization in decline (Strakhov, “Bad Signs” 172) or what the Russian historian Nina
Snetova has called “a crisis of humanism in Western society” (Snetova, “uchenie” 45).
Thus, given the fact that Strakhov had decided to write “Bad Signs” only after the
publication of the French edition of the Origin, the article appears to be at least as much a
review of Royer’s evolutionary ethicizing introduction as it was of the Origin.

However, the fact that Strakhov published the article in such a Slavophile journal
as Time makes more ideological sense, not as an exposition of Darwin’s theory, but as a
critique of Royer’s evolutionary ethics. Indeed, her attempt to justify social stratification based on biological criteria was anathema to *Time*’s pochvennichestvo (return-to-the-soil movement), for such a program would have stymied the educated classes’ rapprochement with the recently freed Russian peasantry.

Ironically, though, Strakhov probably would not have claimed to have accepted Darwin’s theory to the extent that he did, had he not encountered the *Origin* first in Royer’s French translation. Indeed, it is quite possible that Strakhov did not, in fact, read the French edition of the *Origin* in its entirety, but read only Royer’s preface and Darwin’s introduction, for the only quote of Darwin that Strakhov provided came from Darwin’s introduction; otherwise, the little that Strakhov did say about Darwin’s theory could have come from Royer’s brief discussion of it. Nevertheless, as we will see shortly, the notion that mankind represented the height of evolutionary progress was crucial to Strakhov’s apparent acceptance of Darwinian theory. But, again, Darwin himself had, in fact, said little about evolutionary progress or mankind in the *Origin*; rather, it was Royer who had emphasized it in both her mistranslation of the book’s subtitle and in her preface.

Responses to “Bad Signs”

“Bad Signs” did not go unnoticed by critics. One author wrote jeeringly in the progressive *The Contemporary* (*Sovremennik*) that Strakhov had discovered a “bad sign” in that:

Ms. Royer not only translated Darwin’s book on the origin of organic species, but even dared to provide her translation with a long preface and notes and to express a few of her views. Yes, this is a bad sign; and what if Russian women were to
start discussing the materials that occupy Mr. Strakhov, if they take it into their heads to talk about the planets, about Hegel, to translate Kuno-Fischer, Taine, and so on; what are people who aren’t women going to do, that is, our two honorable friends? (“Obzor zhurnalov” 256)

More substantive, albeit still uninformed, responses to Strakhov’s article followed, but all the same “Bad Signs” fared poorly among critics. It drew harsh criticism, for example, from the Russian journalist and translator Piotr Bibikov (1832-1875), who is most well known for his translation of Malthus’ *Essay on the Principle of Population*. Bibikov responded to “Bad Signs” immediately, writing “Sentimental Philosophy” (“Sentimental’naia filosofiiia”) in December of 1862, yet the article itself was not published until 1865 when Bibikov published a collection of articles that previously could not be published for various reasons. He wrote in defense of Royer’s evolutionary ethics, though it is unlikely he had actually read either Royer or Darwin. He labeled Strakhov’s position “sentimental philosophy” because Strakhov did not make any scientific objections, but based them on poetry, morality, and patriotism (Bibikov 107). Such criticism was, to Bibikov, a sign of anti-intellectualism (Bibikov 112). Further, he found the fact that Strakhov had praised Darwin while criticizing Royer inconsistent, for, as Bibikov saw it, Royer’s conclusions followed directly from Darwin’s theory and yet, Strakhov had not raised any objections to it (Bibikov 113).

In turn, the sociologist and political theorist Nikolai Mikhailovskii (1842-1904) joined in and responded to “Sentimental Philosophy” in July of 1869, by writing “The Analogical Method in the Social Sciences” (Analogicheskii metod v obschestvennoi

56 Judging by Bibikov’s paraphrasing of Strakhov’s exposition of Darwin’s theory, together with his reliance on Strakhov’s translations of both Royer and Darwin, it appears unlikely that Bibikov had himself read either Darwin or Royer.
nauke). His discussion of Bibikov’s response to Strakhov’s article made up only part of a more general discussion of the relationship between the natural and social sciences. Mikhailovskii appeared to side with Bibikov while admitting to having read neither Royer’s preface nor Strakhov’s “Bad Signs.” Indeed, the author agreed with Bibikov’s assessment that Royer’s conclusions did, in fact, follow from Darwin’s and that Strakhov’s appeal to emotion was not appropriate to a scientific debate. Nevertheless, Mikhailovskii found the emotions that drove Strakhov’s response admirable, if unrealistic. He suggested the type of response he thought would be more effective than expressing indignation. Using the fact that humans inevitably choke when breathing “sulfuric acid” as a metaphor for an incontrovertible fact of nature, Mikhailovskii recommended directing one’s indignation not at “the properties of sulfuric acid, but at the circumstances that force people to choke in it” (Mikhailovskii 51). In just the same way, he contended that “having acknowledged the dominance of the strong, the healthy, and the smart as a law of nature, you start to look for the laws of cooperation, by which the presence of the weak, the sick, and the stupid would be eliminated, that is, not by denying the law of competition, you try to only take the ground out from under it” (Mikhailovskii 51). That is, he sought a less overtly distasteful means to achieve the same end. Mikhailovskii concluded his article, though, apparently conceding to Strakhov: “[There] is no morality in nature. What is moral is thus done by choice; what is natural is done by necessity, - these are two different categories. Man must combine them for himself. Finding them combined in nature is impossible, but if it were possible, then nature would turn out to be deeply immoral” (Mikhailovskii 53).

57 Further, judging by the fact that he used “estestvennoe izbranie” to mean “natural selection,” which he had gotten from Bibikov, who, in turn, had gotten it from Strakhov, it is unlikely that Mikhailovskii had read Darwin yet, either.
Another response to “Bad Signs” came from a young Il’ia Mechnikov who wrote “A Few Words about the Contemporary Theory of the Origin of Species” (“Neskol’ko slov o sovremennoi teorii proiskhodzenia vidov”) for *Time*. In reality, though, “Bad Signs” had served as only a pretext for Mechnikov to write about Darwin’s theory; he made no mention of Royer (Mechnikov, “Theory” 193).  

1864-1865: Humans, Organicism, and Education

In addition to being the most substantial article that Strakhov would write as a Darwinian, “Bad Signs” was where Strakhov staked out some of the themes that he would revisit in the years to come. He took up writing about Darwin’s theory again in 1864, but after 1865 did not write in detail on the subject again for the remainder of the decade. During that period from 1864 to 1865, Strakhov brought up Darwin’s theory in four articles that were eventually republished in his first two books. But these were not articles about Darwinian theory *per se*: Strakhov touched on Darwin’s theory only tangentially. These articles stand out all the more because they came at a time that Darwin’s theory was, at last, becoming a topic of discussion for a wider audience. 1864 saw an influx of Russian translations of scientific works. Foremost among them was the first Russian translation of the *Origin*; works popularizing Darwin’s theory quickly followed. For example, a young Timiriazev (1843-1920) published a series of such popularizations including a couple of articles titled “Darwin’s Book: its Critics and

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58 *Time* would never get a chance to publish Mechnikov’s article because following the publication of Strakhov’s political article “A Fatal Question,” the government closed the journal down for good. As punishment, the censors forbade Strakhov to put his name on the editorial board of any journal. Strakhov’s career would be, as a result, marred by uncertainty for years to come. By 1864, Strakhov was working with the Dostoevsky brothers again, this time at *Time’s* successor journal *Epoch* (*Epokha*). But the new journal would close in early 1865, proving to be even more short-lived than its predecessor. Strakhov would begin work as the unofficial editor-in-chief at *Notes from the Fatherland* (*Otechestvennie zapiski*) before the end of the year.
Commentators” (Kniga Darvina, ee kritiki kommentatory) (1864) and a book titled A Brief Outline of Darwin’s Theory (Kratkii ocherk teorii Darvina) (1865). This was the beginning of a career as Russia’s leading defender of Darwinism that would culminate in a lengthy written polemic with an anti-Darwinian Strakhov in the late 1880’s. But it was not until sometime after this period from 1864 to 1865 that Strakhov began to reevaluate Darwin’s theory.

In one 1864 essay “Where to Look for a Solution?” (“Gde iskat’ resheniia?”), Strakhov briefly analyzed the issue of the relationship between what he called the “question of man” (vopros o cheloveke)59 and the natural sciences, and whether they were competent, as it were, to answer such a weighty question. But this time it was Huxley who inspired Strakhov’s article. Huxley was gradually becoming a subject of public discussion at the time. His name frequently appeared alongside Darwin’s (Zaitsev 16; Pisarev 38, 42; Antonovich 103-105) and Huxley’s book Evidence as to Man’s Place in Nature (1863) had appeared in two different translations in 1864.60 Darwin’s name, however, came up only in passing, as Strakhov noted the part that Darwin’s theory had in generating the controversy concerning the “question of man” (Strakhov, “Solution” 317).

59 Unless specified otherwise, I will use “man” and “mankind” interchangeably with “human” and “humankind,” respectively, just as Huxley, Darwin, and Strakhov did when distinguishing between humans and the other animals.

What irked Strakhov in particular were Huxley’s word choices; Huxley’s writing seemed to him neither clear nor scientific. Strakhov listed the various titles of recently published works by Huxley, the German naturalist Karl Vogt, and the German botanist Matthias Schleiden, who in their works sought to “find man’s place in nature, or to determine the position of man in nature, or, finally, to explain the relation of man to nature” (Strakhov, “Solution” 318). Such titles, Strakhov thought, only obscured the matter because there were no sciences that dealt with nature in such a general and abstract manner (Strakhov, “Solution” 319).

But by the end of the article, their phrasing turned out to be irrelevant because Strakhov returned to the line of reasoning he had first developed in “Bad Signs.” He found that the question of man --of the difference between man and the animals-- “transcends the sphere of the natural sciences” (Strakhov, “Solution” 319). To Strakhov, it was how people treated each other that really mattered: “when we measure, as they say, the dignity of man, then we are taking not the skull, skin, hair, etc. for starting points of division, but completely different features. We judge by the mind, heart, character, and without the least doubt, we give priority to the dignified man of the yellow race over bad people of the white race” (Strakhov, “Solution” 325). The most important differences were, in Strakhov’s eyes, those of moral and social behavior, not biology. He made no claim here of having solved the “question of man,” but he concluded that there was a more pressing question, namely: “what part can – and even necessarily ought – the natural sciences take in solving the question of man?” (Strakhov, “Solution” 326).

Strakhov took up the issue of man’s place in nature again in 1865 in “What Can the Natural Sciences Say in Response?” (“Chto mogut otvechat’ estestvennye nauki?”).
Now, though, Strakhov was no longer content with his conclusion that mankind’s most important qualities related to its capacity for morality. Instead, he returned to second line of thought he had begun developing in “Bad Signs” and thus he began to speak of mankind as Huxley whom he had so recently criticized did. What made man such an exceptional animal, Strakhov was now willing to stipulate, was his status as a “thinking organism” (Strakhov, “Response” 337). To be sure, as Strakhov forthrightly acknowledged, science at that point could not explain the biology of thought, but he readily speculated that the explanation of mankind’s dominion over nature and the origins of its capacity for thought could be found in evolution:

Darwin found that organisms evolve by the law of natural selection [podbor]. If one takes that perspective, then it turns out that man is the most selected for being in nature, the being before which all other beings, the organic ones, just like the inorganic ones, retreat and are defeated in the struggle for existence…If the struggle is the engine of evolution, then it could be said that man is the limit of the Darwinian struggle because there the battle ends, he is the ruler, for whom there are no rivals, to whom all submit alike. (Strakhov, “Response” 337-338)

Thus, Strakhov had maintained a belief that man was the height of evolution since he had written “Bad Signs.” Now, though, he attempted to reify this conviction of evolutionary progress in terms of the capacity for thought. And Darwin’s theory of evolution, Strakhov

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61 From the passage above, it appears that by 1865 Strakhov had, at least, found others’ using the translation of “natural selection” (“podbor”) that Rachinskii had normalized in his 1864 translation of the Origin, even if there is no definitive evidence that he himself had not read the Russian edition yet. Interestingly, though, he still referred to natural selection as a “law,” as he had in “Bad Signs.” (World as a Whole, Strakhov 337) The last time he used his own translation was in March 1865 in the preface to his first book On the Method of the Natural Sciences and Their Meaning in General Education (1865).
thought, was able not only to explain the origin of man, but also to account for his superiority to the animals (Il'in; Antonov, “Kharakter”).

Darwin’s name also came up sporadically in a series of articles called “On Simple Bodies: a Critique of the Theory of Elements” (O prostykh telakh: kritika teorii elementov) (1865). There Strakhov returned to the idea of common descent in an article titled “The Necessary Path of Science” (“Neobkhodimyi khod nauki”). Now it became clear that the theory of common descent appealed to Strakhov’s nascent philosophy of “wholeness” (Antonov, “Kharakter”): “The species of animals and places, which were once considered absolute particulars, independent of form, as recognized now thanks to Darwin, to have gradually evolved from one another. Thus, the wholeness of the world, despite its diversity, is being proven more and more clearly” (Strakhov, “khod” 507). That is,

According to Darwin's theory, it turns out that the similar-ness of organisms, which the defenders of the fixity of species considered a form of classification, is the actual relatedness of plants and animals to each other. The so-called transitional forms, which the systematists had so often pointed out, are the actual transitions from one form to another, and so on. (Strakhov, “khod” 508)

Strakhov’s philosophy of “wholeness” (tselost’) was a kind of organicism, a philosophy more commonly known now as “holism.” One of the most important features of organicism, as Ernst Mayr noted, is that it “emphasizes relationships” (Mayr, Growth 67). Indeed, it is just this very related-ness contained in Darwin’s theory of common descent that appealed to Strakhov.
When Strakhov published his second book *The World as a Whole*, in 1872, it included an introduction he had written for it where he explained what he meant by the concept of “wholeness” that he had gradually articulated in his writings over the last decade. The concept was made up of two different notions. The first stated:

*The world is an orderly whole*, or, as they say, a harmonious, organic whole. That is, the world’s parts and phenomena are not simply connected, but are *jointly subordinate* (*sopodchiniony*); they represent the proper ladder, pyramid…hierarchy of beings and phenomena. The world, like an organism, has parts that are less important and more important, higher and lower; and the relationship between these parts is such that they represent a harmony. They *serve* one another, form a single whole in which there is nothing superfluous or useless. (Strakhov, “Predislovie” VII)

Thus, on the one hand, essential to Strakhov’s organicism is the idea of a world that is made up of interacting and interconnected parts that form a hierarchy. Though these parts may change over time, each part has its own value and, together, these changing parts will ultimately achieve a harmony that is perpetually being renewed. On the other hand, the value of each part varies hierarchically; the closer to the top of the hierarchy a part is, the more valuable it is. Predictably, given what he has previously said about evolutionary progress, the second notion and the most valuable part for Strakhov is mankind: “Man is the height of nature, the core of existence. In him there is to be found the greatest mystery and the greatest wonder of the universe” (Strakhov, “Predislovie” VII).

Although Darwin’s theory of common decent could easily be integrated into Strakhov’s organicism, the nature of Darwin’s mechanism – natural selection – would not
be so easily reconciled. In fact, many of Strakhov’s later criticisms of Darwin stemmed from his organicism. In particular, it was Strakhov’s anthropocentrism that ultimately drove his anti-Darwinism.

Naturally, Strakhov’s philosophy of “wholeness” calls to mind Ivan Kireevskii’s notion of the “integral personality” (“tselaia lichnost’”) and Aleksei Khomiakov’s concept of “sobornost’” because of their shared emphasis on “wholeness” and shared conceptual origin in German idealism. But Strakhov’s philosophy differs radically in its scope and purpose. Although Kireevskii’s concept of “integral personality” was largely an anti-rationalist theory of the human psyche and Khomiakov’s “sobornost’” was a sociological and epistemological theory aimed at unifying the individual and the collective, both theories predicted that Christian faith and the Russian Orthodox Church would give rise to the “wholeness” their theoreticians sought. The philosophy Strakhov developed, though, was largely about the nature of the universe and made no such place for religion.\(^\text{62}\)

The most noteworthy article that Strakhov wrote during this period, his 1864 “The Natural Sciences and General Education” (“Estestvennye nauki i obshchee obrazovanie”), stands out in Strakhov’s writings because the positions he took contrasted starkly with the essays he would soon produce as an anti-Darwinian. It is unsurprising, given his years of experience teaching natural history to Gymnasium students, that Strakhov supported the idea of incorporating the natural sciences into general education. Acknowledging nonetheless that the natural sciences at present were not infallible,

Strakhov turned at the end of the article to Darwinism as a science that was still young, but showed promise:

The only objection that can be made against introducing the natural sciences into general education is, of course, that these sciences still have not achieved that full state of being finished and rigorous polishing that, for example, elementary geometry or the grammar of, say, Latin, have. It is impossible not to see that much is still only being established in the natural sciences and has yet to be completely established and take a strict form. To be convinced of this, one just has to remember the recent appearance of Darwin’s theory. (Strakhov, “Education” 29)

Strakhov contended that while Darwinism was only in its infancy, and thus materials suitable for instruction were scarce, it was still at the forefront of the natural sciences. The benefits to be gained from teaching the natural sciences, he insisted, outweighed any inconveniences. In particular, the natural sciences were important because of their objectivity:

The objects of their teaching are external objects; therefore they are diverse, complex, broad, scattered in space, and stretched in time. Therefore, teaching them demands not sitting, but walking, moving in space; in the same way, it cannot take place at any time, but has to be adapted to the times of the phenomena. From all this, of course, it is more correct to draw a conclusion in favor of the natural sciences than against them. They lead man out of his internal world and connect them to the external world…In our sad countries subjectivity is developing powerfully; the dead sleep of nature, which is called winter, chases us
into ourselves, and in this sleep and silence we grew accustomed to living, functioning, and studying. [The natural sciences] will destroy our solely subjective state; they will counterbalance it with their influence and will thus contribute to a fuller and more harmonious development of spiritual strength.

(Strakhov, “Education” 31)

Strakhov included “The Natural Sciences and General Education” (“Estestvenye nauki i obshchee obrazovanie”) in his first book, On the Method of the Natural Sciences and Their Meaning in General Education (O metode estestvennykh nauk i znachenii ikh v obshchem obrazovanii) (1865). Upon this second printing, he included a footnote containing his 1862 exposition of Darwin’s theory in full (Strakhov, On Method 178-182). He did not include, however, his critique of Clémence Royer’s evolutionary ethics.

Further, in the book’s preface, Strakhov hinted at what would prove to be an enduring source of anti-Darwinian criticism: the mechanistic orientation of the sciences. Although he accepted the value of mechanistic thinking, he was convinced that a complete picture of nature could not emerge from such atomistic thinking alone: “Darwin’s book, for example, was written entirely according to these [mechanical] categories. There is, of course, no trouble here; for the application of mechanical categories ought to be everywhere brought to the end, to the possible limits; the issue is just that an understanding of nature doesn’t end with this application” (Strakhov, On Method XI). In fact, Strakhov went so far as to suggest that Darwin misunderstood his own mechanism: “It is remarkable however, that the law of Darwin, the law of natural selection (izbranie), although Darwin himself looks at it from a mechanical point of view,

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63 It is unclear from the text, which countries Strakhov had in mind.
is obviously an *immanent* law of organic nature: the organisms in it are beings that work themselves out, as it were, using accidents for their improvement” (Strakhov, *On Method XI*).

Thus we see that during the period from 1862 to 1865, Strakhov has, on the whole, remained a fairly avid supporter of Darwin’s theory, though he was becoming increasingly critical of certain aspects of the theory. From the beginning, when Strakhov wrote “Bad Signs,” he seemed to fully accept Darwin’s theory of evolution by natural selection, only noting that it did not solve all of the riddles of the natural world. He still held this view when in 1864 he wrote “the Natural Sciences and General Education,” advocating the introduction of the natural sciences, in general, and Darwin’s theory, in particular, into the general school curriculum. And Strakhov did so, noting that while the findings of the natural sciences were subject to revision, their inclusion together with the emphasis the natural sciences have on the objective natural world was important to a balanced spiritual development, especially at a time when the value of subjectivity, Strakhov thought, was being overemphasized.

For the most part, Strakhov’s writings after “Bad Signs” served only to confirm his apparent support for various aspects of Darwin’s theory. For example, in “What Can the Natural Sciences Say in Response?”, he reiterated his belief that humans represented evolutionary progress, though now he further refined this belief by tying it to what he considered mankind’s unique capacity for thought. Strakhov also thought that Darwin’s notion of common descent complemented his own holistic philosophy.

The most well developed criticisms Strakhov had made, on the other hand, were not of Darwin’s theory itself, but of its being used to form the basis of moral judgments.
As noted above, though, Darwin’s theory was not, to Strakhov’s mind, beyond reproach, and it was in the preface to his 1865 book *On the Method of the Natural Sciences and Their Meaning in General Education* that the beginnings of Strakhov’s dissent from Darwin’s theory started to show. He faulted Darwin for limiting himself to a mechanistic point of view, that is, for looking at organisms only in terms of their parts. But Strakhov thought of natural selection in “organic,” or holistic, terms and believed that the organisms themselves ought to be viewed as parts of a greater whole and that natural selection worked to improve organisms for their own good and put them in harmony with that whole.

As becomes apparent only after his transformation, the praise Strakhov had expressed for Darwin’s work in “Bad Signs” was, at least in part, the result of a misunderstanding caused by Royer’s French translation of the *Origin*. Indeed, her preface and mistranslation of the *Origin*’s subtitle overstated the role that the notion of evolutionary progress played in Darwin’s conception of natural selection. It was the implications that a mechanistic understanding of natural selection has for the notion of evolutionary progress that turned Strakhov into an anti-Darwinian.

Strakhov would not write on the subject of Darwin’s theory again until 1871. This lull in Strakhov’s Darwin-related writing coincided with the Tsarist government’s temporary ban on so-called “subversive” scientific works” that included the *Origin* (Rogers, “Opposition” 487). Following the revolutionary Dmitrii Karakozov’s attempt on Tsar Alexander II’s life in 1866, the government had enacted the ban because it saw a connection between revolutionary thought and Darwinian theory (Rogers, “Opposition” 488). Hence, very little was published during this period that made any mention of
Darwin, regardless of the author’s attitude toward Darwin and his theory. Mikhailovskii’s article “The Analogical Method in the Social Sciences” was one of the very few exceptions. Once the ban ended, though, the works on Darwinism that the censor allowed to be published became preferentially hostile.

1866-1872: Becoming an anti-Darwinist

During the interval from 1866 to 1871, Strakhov formed what would prove to be enduring friendships with the naturalist Nikolai Iakovlevich Danilevskii (1822-1885) and the novelist Tolstoy (1828-1910). Strakhov had met Danilevskii while at the university, but he befriended him only in 1868, when Danilevskii came to Russia’s capital in search of a publisher for his manuscript of *Russia and Europe* (*Rossia i Evropa*) (1869). Strakhov approached the editor of Pan-Slavist journal *Dawn* (*Zaria*) where he worked at the time and, interceding on Danilevskii’s behalf, convinced the editor to serialize Danilevskii’s book in 1869 (Gerstein 108).

In its pages Danilevskii set forth a theory of what he called cultural-historical types that he used to predict that Russia was destined by history to take its place at the head of a political federation made up of all the Slavic states and become the next great dominant civilization in the world. But the impression Strakhov gave of the importance of Danilevskii’s book in the introduction he wrote for it was much more benign: “Danilevskii’s whole theory can be regarded as an attempt to explain the place of the Slavic world in history…Due to their exceptional place among other peoples…. the Slavs are destined to change the views of history rooted in Europe, according to which nothing can come from the Slavic world” (Danilevskii xlii).
It was also during his brief time at *Dawn* that Strakhov caught Tolstoy’s attention. In the journal’s first issue, Strakhov published what would become his best-known work of literary criticism: an article on Tolstoy’s *War and Peace*. A further article, “The Woman Question” ("Zhenskii vopros") (1870), interested Tolstoy so much that the author penned a long and enthusiastic letter to Strakhov, on March 19th, 1870, though the letter would go unsent (Tolstoy, *PSS* 61: 306). Ultimately, Strakhov initiated the correspondence, with a request to Tolstoy on behalf of *Dawn*, asking Tolstoy to be a contributor (Gerstein 126). Tolstoy politely declined, but he invited Strakhov to visit him at his home at Iasnaia Poliana (Tolstoy, *PSS* 61: 314), and the two men met at last in 1871.

Strakhov’s next article on Darwin came in early 1872, at a turning point in the history of Darwin reception in Russia. “A Revolution in the Sciences” ("Perevorot v nauke") (1871) demonstrates Strakhov’s new approach to Darwin, serving indeed as the opening volley in Russia’s late nineteenth-century anti-Darwinian crusade (Vucinich 104), in which Strakhov would find eager allies in both Tolstoy and Danilevskii.

When exactly Strakhov had this change of heart and became a staunch anti-Darwinist is unknown, but it may have taken place as early as 1867-1868, even though Strakhov would not publish his first anti-Darwinian article until early 1872. Writing to Tolstoy in March 1872, Strakhov confessed:

And here is why my book about the origin of things has taken a pause. I had found the time and had started reading. I read Darwin, Caspar-Friedrich Wolff, had started on Spencer and on Bulterov, when N. Ia. Danilevskii suddenly appeared and said that he was going to write about Darwin. I decided to defer to
him and gave him my books, but I see that he is lazy and it seems that I will have to take up the matter myself after all? (Perеписка 14-18)

Presumably, it was to that end that he wrote his next article, “The Revolution in the Sciences” (1872).

The historian Alexander Vucinich describes an uncorroborated episode that took place in 1870 when Strakhov allegedly went with the Slavophile historian Mikhail Pogodin (1800-1875) to the Ministry of Education to speak about the threat that Darwin’s theory posed to the values of the tsarist autocracy. Dmitrii Tolstoy (1823-1889), the Minister of Public Education, proved to be a willing listener.

In 1871, Minister Tolstoy came to a long-anticipated decision about new statutory regulations for gymnasiums. He made the “classical” gymnasium with its focus on classical languages, as opposed to the natural sciences that included Darwin’s theory, “the only direct institutional path to university education” (Vucinich 103-104). Thus, this reform went against the earlier reforms of 1848, which had brought the natural sciences into the gymnasium curriculum. “The growth of nihilism and revolutionary opinion among Russian youth in the late 1850s and 1860s,” as the historian of science James Rogers explains “led the Tsarist government to once again offer classical education as an antidote to the allegedly subversive influence inherent in the study of the natural sciences” (Rogers, “Opposition” 488). Ironically, if his visit to the Ministry of Public Education did, in fact, take place, Strakhov now sought to undo the very reform that had enabled him to work as a natural history teacher in the 1850’s in the first place.

And Strakhov would have thus reversed the position he had taken in his 1864 article “The Natural Sciences and General Education.” Whereas earlier Strakhov had
advocated not only the introduction of the natural sciences into general education, but of Darwinian theory in particular, now he allegedly called for banning Darwin’s theory altogether from that same curriculum. Nevertheless, regardless of whether Strakhov had, in fact, met with Minister Tolstoy, Strakhov did express similar, new opinions in his first anti-Darwinian article, “A Revolution in the Sciences” (1872), Strakhov’s most substantive article on Darwinian theory since “Bad Signs”. Like “Bad Signs,” it proved to be as much a moral critique as it was one of science. The article came in the wake of three different translations of Darwin’s *The Descent of Man* (1871) (Strakhov, “Followers” 135), which, together with the translations of the *Origin*, Strakhov would describe in 1873 as incapable of being “comfortably read in Russian” (Strakhov, “Followers” 145-146). He began his article by trying to account for the sudden success of Darwin’s theory and how the mutability of species had come to be seen as a respectable theory by scientists. As he saw it, no scientific discovery could account for this acceptance:

Cuvier’s doctrine [of the fixity of species] was not destroyed by gradual investigation, by new facts, by new discoveries that made clear its inconsistency. It gave way suddenly, as opinions do that are held on faith, and not on scientific grounds. The facts didn’t change, our data have not grown; but a new opinion did appear, a new faith, and the old doctrine had to make way. The speed with which Darwin’s theory attracted followers does not in the least correspond to its intrinsic worth. (Strakhov, “Revolution” 117)

In other words, evolutionism had become a viable theory owing to extra-scientific causes. It had only been, Strakhov maintained, scientists’ slavish deference to authority that had
allowed Cuvier’s theory to remain unchallenged for so long (Strakhov, “Revolution”117). But the spread of materialism in Europe had facilitated the rejection of Cuvier’s theory in favor of Darwin’s. For it resonated with the new generation of scientists’ belief in materialism or what Strakhov called more generally “nihilism” (Strakhov, Revolution” 134). Thus, Strakhov contended that the Darwinian revolution “took place not in strict accordance with the development of the science, but was driven by external influences. It is not the science that suddenly changed direction, but the naturalists” (Strakhov, “Revolution” 134).

Although Strakhov did not approve of the influence that social factors had in the development of science, he acknowledged that the history of science would not make sense “if it were guided by logic alone” (Strakhov, “Revolution” 121). Rather, he contended that science was guided by the moral beliefs that the scientists of a given country share:

Every people and every epoch prefer a given doctrine not on the strength of its logical development, but owing to a certain moral inclination thereto. Thus, the English remain to this very day skeptics and empiricists; but the same doctrine that had the feature of skepticism and empiricism in England, having been transferred to France, becomes materialism and sensualism, and in Germany turns into idealism. (Strakhov, “Revolution” 121)

Strakhov went so far as to claim in passing that Darwin’s theory itself bore the marks of its nation of origin, and he seized on the opportunity to promote Danilevskii’s new book:

The subject of the role that nationality plays in science is brilliantly developed by N. Ia. Danilevskii in chapter six of his book (Russia and Europe, SPB. 1871.).
There he points out, among other things, that Darwin’s theory, just like Hobbes’ view of government and Adam Smith’s of political economy, bears the stamp of the English moral character. (Strakhov, “Revolution” 121)

English materialistic science is thus unpalatable to Russian mores. It is worth noting, though that earlier it had not been Darwin’s, but Royer’s nationality that Strakhov had hitherto pointed out as he popularized Darwin’s theory a decade earlier. Now, though, he maintained that he was unconvinced by Darwin’s theory, as he found it to be both morally and scientifically unsatisfying. Granted, he was willing to accept that Darwin’s predecessor Georges Cuvier’s theory was incorrect. But he protested that Cuvier’s theory, at least, made moral sense. Darwin’s theory, on the other hand, stripped the organic world of that moral meaning and in its place left only randomness:

The changes to which organisms are subject, owing to numerous unknown causes, are either advantageous or disadvantageous for organisms. This advantageousness or disadvantageousness is a completely random occurrence for each being; it depends on a combination of external circumstances, among which an organism lives, and on the combination of other organisms that are living with it. And it is on this entirely random advantageousness or disadvantageousness of variation occurring in the organism that all of the diversity of animal and plant life depends. Advantageous variation remains, becomes established, and forms new species; disadvantageous variation is eliminated. This process is called the struggle for existence. (Strakhov, “Revolution” 127)

Thus, in calling attention to the fact that variation is undirected, Strakhov inaccurately saw the Darwinian struggle for existence as “random” (Snetova, “uchenie” 49; Rogers,
“Opposition” 499). That is, an adaptation (adapted feature) does not increase adaptedness in a vacuum, but only relative to a particular environment. Indeed, Strakhov could not help but perceive the struggle for existence as random, nor was he alone in this confusion; as Ernst Mayr has noted, this is a feature of natural selection that proved to be particularly troubling for Darwin’s contemporaries, who were primarily Newtonians, as “[They] could see only a single alternative to teleological determination, this being accident” (Mayr, *Growth* 519).

And like many of Darwin’s contemporaries (Mayr, *Growth* 519), Strakhov found this non-teleological aspect of natural selection most disturbing morally, as he came to consider the implication that human evolution was not, in fact, inevitable (Snetova, “uchenie” 49; Antonov, “Otsekena” 53-54; Antonov, “Kharakter”): “Thus man finally evolved; his structure and everything in him that we call beauty, nobility, spirituality are only a reflection of certain chance occurrences that don’t follow any laws and don’t form any whole, and amongst which the animal kingdom evolved” (Strakhov, “Revolution” 128).

Strakhov did nevertheless understand the effects of according undirected variation such an important role in the theory of natural selection: “Its strength,” Strakhov contended “is that it makes phenomena random and makes it unnecessary for them to be explained from a more elevated source; it denies such a source. There is nothing clearer and simpler with any question than rejecting the very basis of the question; then, the mind puts itself at ease, not seeing any task before it” (Strakhov, “Revolution” 129). Its weakness, on the other hand, was that it turned the evolution of any trait into an open question. In particular, Strakhov focused on the question of human evolution,
acknowledging that “even if [such a Darwinian conclusion concerning man] were completely founded, it cannot satisfy us until the theory explains to us precisely what changes species had undergone, by what laws differentiation took place, and precisely how the surprising adaptations and the surprising characteristics of organisms that we know were received and not some others” (Strakhov, “Revolution” 131).

Strakhov understood that Darwin had yet to provide a satisfying explanation of inheritance (Strakhov, “Revolution” 132), but for Strakhov the problem was not as simple with regard to humans as it was for other organisms. Although, he did, in fact, want to know the actual evolutionary history of mankind (Gerstein 158-159; Antonov, “Otsenka” 53-54), to Strakhov’s mind, the difficulty arose because of man’s unique qualities:

man is a completely special being in nature: he has the rudiments of characteristics that fundamentally diverge from animality, and consequently his origin, no matter what it is, is the greatest wonder, such a leap, such a revolution, the equal or likes of which is not to be found in all of the remaining history of terrestrial nature. (Strakhov, “Revolution” 132)

Strakhov sought an evolutionary explanation of how so unprecedented a creature as man could emerge, but at the same time he wanted that explanation to be fundamentally different from that relating to other organisms, one that accorded man the special place in the universe that Strakhov thought mankind deserved.

Strakhov ended his article by turning briefly to the topics of extinction and mechanism, subjects he would reprise periodically throughout his anti-Darwinist period. Here Strakhov argued that Darwin had wanted to avoid giving a so-called “organic” explanation of extinction and had therefore given a mechanical one in its place. That is,
Strakhov believed incorrectly that Darwin had deliberately conceived of death as randomly occurring, noting:

Of course, any organism may be killed violently, and probably a large part of them die just so. But such a death is a *chance event*, not stemming from the organization and development of the organism, and therefore, if all organisms were to die thus…it wouldn’t be necessary to explain why an organism dies after a given time without any external cause, without any change in external conditions. Darwin, in order to avoid the necessity of an organic explanation of the extinction of species, accepts for them everywhere a mechanical death. (Strakhov, “Revolution” 133)

In other words, Strakhov claimed that by treating death as a chance occurrence, Darwin had made an organism’s morphology and development unrelated to its manner of death, and thereby avoided having to provide a cause of death. That Strakhov took the role played by death in natural selection to be random is unsurprising, given the fact that he understood undirected variation to be random. Indeed, Strakhov sought a different kind of extinction, one in which “Certain phases of life were outlived, so to speak; they disappeared, not crowded by anything, but by themselves” (Strakhov, “Revolution” 134). That is, Strakhov was looking for an explanation of extinction that was compatible with his organicism. He wanted extinction to both be brought about harmoniously and, in so doing, bring about harmony. As Michael Ruse notes of organicism in general, “the competition at the heart of Darwin’s vision of change is considered deeply upsetting and in some respects offensive. Of course there is death and destruction, but it is ameliorated
by the essential oneness of everything, the push for harmony and cooperation” (Ruse, “Organicism” 99).

Strakhov’s Transformation

As we have seen, Strakhov would ultimately never offer a direct written explanation of why he had become an anti-Darwinian. But to judge by “The Revolution in the Sciences,” Strakhov’s first anti-Darwinian article, he was uneasy about Darwin’s theories of common descent and natural selection and what they meant for his belief in human exceptionalism.

To be sure, Strakhov had long believed humans to be exceptional animals (Il’in); this was central to his organicism. In 1862, he had seemingly accepted what he then called Darwin’s “discovery”: the “law” of natural selection. And he had also seemed to accept Darwin’s theory of common descent. At the same time, however, Strakhov had maintained that humans, as the result of the severest struggle for existence, represented evolutionary progress. At that point, Strakhov had reserved his criticism almost exclusively for Darwin’s French translator Clémence Royer. He had appeared to be able to accept the scientific merit of Darwin’s discovery without also accepting any of the moral conclusions that Royer sought to derive from it. Indeed, as Daniel Todes observes, “[Strakhov] had no difficulty praising Darwin while criticizing ‘Social Darwinism’” because he believed that “humans chose ideals and established social laws independent of natural law” (Todes 40).

In the intervening years between “Bad Signs” and “A Revolution in the Sciences,” Strakhov had continued to believe that mankind represented evolutionary progress (“What Can the Natural Sciences Say in Response?”), while also accepting
Darwin’s theory of common descent (“On Simple Bodies”). He had first registered dissent from Darwin’s ideas in his 1865 preface, when he had taken issue with Darwin’s looking at nature from a “mechanical point of view,” but he had expressed no misgivings about the role of chance in natural selection. Rather, he had noted that organisms “work themselves out, as it were, using accidents for their improvement” (Strakhov, On Method XI). But something changed after 1865. And clearly, by 1871, his moral concerns about Darwin’s theory had become so grave that he approached the Minister of Public Education, and, in effect, recanted his earlier support for Darwinian ideas. Indeed, now he allegedly even sought to remove Darwinian theory from general education entirely.

By 1872, Strakhov had begun to explore natural selection and its implications in greater detail in his writings. By then he had also come to understand that the raw material of natural selection – variation – is, according to Darwin, undirected and is not adaptive a priori. Thus, Strakhov realized that, according to Darwin’s theory – even if Darwin did not always adhere to the conclusions of his own theory –, the features humans so value, such as beauty, nobility, and spirituality, had evolved only because of their value to survival and, ultimately, reproduction. But because Strakhov was more interested in emphasizing the differences between humans and the other animals than their similarities, he could not help but find a Darwinian explanation of human evolution unsatisfying. Strakhov was not opposed, in principle, to the theory of common descent. Rather, the fact that Darwin’s theory of common descent was the product of undirected variation culled by natural selection simply morally offended Strakhov’s anthropocentricism (Rogers, “Opposition” 499; Gerstein 158; Snetova, “uchenie” 49; Antonov, “Otsenka” 53-54; Il’in). Indeed, as Antonov notes:
Strakhov could not agree that man is a chance occurrence or even a mistake of nature on the same level as lichen and mold. His views on nature, especially on the organic world and man, are characteristically teleological. In connection with this, he came out against Darwin’s theory and his followers, according to which the design found in nature is a product of a chance equilibrium of battling forces. He believed in the highest ideal design of the whole organization and development of the world. (Antonov, “Kharakter”)

Thus, Strakhov sought a progressive component that would confer inherent value on mankind, a component that undirected variation could not provide (Rogers, “Opposition” 498; Antonov, “Otsenka” 53-54). What he wanted, instead, was an orthogenetic theory of evolution – one stipulating that evolution is driven by an immanent perfecting principle – like Karl Nägeli’s (Mayr, Growth 529). More broadly, Strakhov’s search for such an anthropocentric theory formed part of his organicist philosophy. To be sure, organicism does emphasize the relatedness of all things. But another important tenet of Strakhov’s philosophy was, as Nina Snetova has noted, that “The world … presents a system which is hierarchical in structure. Man is at the highest level of this hierarchy, the master of all nature. In accordance with organicism, Strakhov presents an anthropocentric picture of world” (Snetova, Filosofia 334-335).

Thus, Strakhov had turned from drawing a distinction between Darwinism and evolutionary ethics to criticizing what he saw as the moral implications of Darwinism itself. In 1862, Strakhov had criticized Royer and portrayed her as an omen (“Bad Signs”) of the coming moral decay in Western European. By 1872, the very fact that Darwin’s theory had gained currency in Europe was proof that it had been infected by materialistic
nihilism. Ironically, though, Strakhov was not alone in his moral criticism of Darwinian theory; in fact, he had numerous European allies (Gerstein 155). Critics and defenders alike were able to accept the fact of evolution, just not Darwin’s explanatory mechanism (Mayr, *Growth* 514). Indeed, Strakhov was no creationist (Il’in). He accepted evolution or, as he called it, “the change of species” (Snetova, “uchenie” 48; Il’in; Rogers, “Opposition” 498); he just could not accept Darwinian evolution (Snetova, “uchenie” 48; Il’in).

But the fact remains that Strakhov had expressed his unambiguous support for Darwin’s theory in “Bad Signs,” published in late 1862, and continued to view the theory positively until, at least, 1865. The part of Darwin’s theory that was crucial to Strakhov’s acceptance and later rejection centered on the idea of evolutionary progress and how it could justify anthropocentrism. But, as we have seen, though Darwin did, in fact, believe in evolutionary progress, he said little about it, not to mention humans, in the *Origin*. Hence, it appears more likely that the idea of evolutionary progress occupied such a prominent place in Strakhov’s understanding of Darwin’s theory precisely because he understood the theory in terms of the French translator Royer’s introduction and her mistranslation of the *Origin*’s subtitle. Furthermore, it still remains unclear whether Strakhov had actually read the French translation prior to writing “Bad Signs.”

To be sure, Strakhov was aware, to some degree, that what he called “accidents” played a role in evolution, but, even as late as 1865, he still saw them as inevitably resulting in progress, a kind of targeted progress that, admittedly, Strakhov forgivingly thought Darwin had missed because of his mechanistic focus. It was precisely this
eagerness to see Darwin’s theory in organic terms that allowed Strakhov to accept it for as long as he did.

With Strakhov’s disillusionment came the realization that Darwin was just another materialist. Indeed, Strakhov was also a materialist, but, as he saw it, Darwin’s materialism was purely reductionistic and therefore a kind of nihilism, whereas he subscribed to one that embraced both mechanistic-reductionistic as well as organicist thinking. To Strakhov, the reductionistic picture of the world was, if not entirely immoral, at least, thoroughly amoral. If variation in organisms arises only by chance and that variation is determined solely by its value to survival and reproduction in the interminable struggle for existence, then there is not and will not be any harmony. Nature is indifferent and humans are therefore not special or destined to exist. Another organism could just as easily have come to occupy what Strakhov saw as man’s place in the universe.

Had Strakhov understood Darwin in 1862 as he did in 1872, he would have roundly condemned him with the “Western European” Royer in the article he wrote for Time. But unlike “Bad Signs,” the critical position Strakhov took with regard to Darwin in “The Revolution in the Sciences” was not out of place in the Slavophile publication Dawn. In fact, the position he articulated was that of a general and orthodox Slavophile. For he claimed that the morality of a particular country gave direction to its science. Thus, the fact that Darwinism had spread throughout Europe implied a common moral thread tying Europe together, one that did not include Russia. In so doing, Strakhov placed Darwin’s theory in an insurmountable opposition to the mores of Russians in general and its scientists in particular and thereby suggested that any attempt Russia
makes to model itself on another country, not to mention a Western European country, is bound to fail.

Not long after the publication of “A Revolution in the Sciences,” in March of 1872, Strakhov exchanged a series of letters with Tolstoy. Although their friendship had begun with Strakhov’s article on *War and Peace*, the two shared an antipathy to Darwin’s theory that led Tolstoy to take an interest in Strakhov’s non-literary articles as well. In particular, Tolstoy had read and admired Strakhov’s “A Revolution in the Sciences.”

The experience that Tolstoy had with Darwinism was remarkably similar to Strakhov’s. Each had initially favored Darwin’s theory in the 1860’s, only to become a staunch opponent by the 1870’s. But, as I will show in the next chapter, aside from their general interest in separating humans from the rest of the animals for purposes of ethical judgments, the hostility they expressed about Darwinian theory in their writing had very little in common.

1873-1874: Undirected Variation, English Culture, and Extinction

Strakhov published his next article on Darwinism “Followers and Opponents” (“Posledovateli i protivniki”) in the Slavophile journal *The Citizen (Grazhdanin)* in 1873. It was largely a continuation of “A Revolution in the Sciences.” In fact, these two articles would appear together in the second volume of *The Fight with the West in Our Literature (Bor’ba s Zapadom v nashei literature)* (1883). It was the publication of third edition of Rachinskii’s translation of the *Origin* (1873) that had given Strakhov the pretext to write the article, but he touched on the subject of Rachinskii’s translation only briefly, remarking “Darwin is translated and published here with such a carelessness that strangely contradicts the great respect apparently accorded him by both translators and
the public. Of all the translations and editions we do not know one book of Darwin’s that could be comfortably read in Russian. The translation of *On the Origin of Species* can still be considered the best” (Strakhov, “Followers” 145). Admittedly, the translation was not beyond reproach. Strakhov listed various examples of phrasing that struck him as unnatural to the Russian ear in addition to some examples of Rachinskii’s awkward attempts to avoid using loan words (Strakhov, “Followers” 146).

Strakhov used the rest of “Followers and Opponents” to revisit themes from “A Revolution in the Sciences.” The thrust of his argument remained unchanged: chance could not produce the exquisite design found in nature. Now, though, rather than blame the scientific community, Strakhov turned his attention to Darwin himself. Although Strakhov acknowledged that Darwin enjoyed great popularity at the time, he claimed that Darwin wrote unintelligibly and gave no indication of how his ideas related to those of his precursors. As a result, Darwin had generated a great confusion in his readers, laymen and scientists alike, who began defending what they mistook to be Darwin’s theory.64 The types of confusion varied. Strakhov thought, for example, that Darwin had given his books misleading titles. The *Origin*, he thought, would have been more aptly called “a tract on the extinction of species,” as it did not “explain any origin” (Strakhov, “Followers” 136). Strakhov’s most substantive criticisms, though, were of a more scientific nature.

Taking a well-known scientist and Darwinist to illustrate the confusion that Darwin’s works had wrought, Strakhov singled out the German biologist Ernst Haeckel (1834-1919), whose understanding of Darwin’s theory he considered “terrible in its

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64 Although Strakhov could certainly have been describing himself as such a confused reader, he gives no indication that he has himself in mind here.
crueness” (Strakhov, “Followers” 136). In particular, Strakhov took issue with what he took to be Haeckel’s mechanistic interpretation of Darwin’s theory. For, again, as Strakhov understood it, Darwin’s theory was, in fact, an organic one. In a further criticism, Strakhov insinuated that Darwin was primarily motivated by fame because, he thought, Darwin would have defended his theory against such interpretations “if he cared about the precise sense of his theory, and not about fame alone, not just about acquiring followers, no matter who they are” (Strakhov, “Followers” 138). Strakhov concluded:

The main weight and sense of Darwinian theory consists in the negation of the goal-directed nature of organisms, in the assumption that this goal-directed nature came from an accumulation of accidental variation that proved to be disadvantageous for the beings in which the variation occurred. Growth and heredity are not explained in this theory, but are assumed as given phenomena from which one must explain the remaining phenomena. (Strakhov, “Followers” 141)

And to ensure that no one misunderstood his point, Strakhov refined it still further, noting that “Simple-minded readers often think and say that Darwin proved or discovered or refuted something; but nothing of the sort can be said about him; he only introduced to the field of the natural sciences his view, the idea of chance” (Strakhov, “Followers” 142). Strakhov also cited the eminent embryologist and anti-Darwinist Karl Ernst von Baer (1792-1876) to refute Darwin’s theory. Von Baer had affirmed, “it goes without saying that something goal-directed and profound can never arise from chance

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65 Strakhov did not write his own refutation of Haeckel’s interpretation. Rather, he relied on Haeckel’s compatriot Hermann von Helmholtz’s exposition of Darwin’s theory to refute him.
particulars, but from the very beginning ought to be conceived as something whole, though capable of improvement” (Strakhov, “Followers” 145).

Thus, Strakhov had returned yet again to the topic of the role that chance plays in Darwin’s conception of natural selection. The points he made differed little from those he had made in 1872 in “ A Revolution in the Sciences.” Now, however, Strakhov had begun to rely explicitly on the arguments that others had made in an attempt to refute Darwin’s theory. At the same time his own arguments had become more personally pointed.

By April of 1873, Strakhov had already written half of his next article on Darwin’s theory (Perepiska 29-32). He finished “On the Development of Organisms” (“O razvitii organizmov”) in September of 1873 and published it the following year in the Muscovite journal Nature (Priroda), a popular science periodical founded by the Russian zoologists Sergei Usov (1827-1886) and Leonid Sabaneev (1844-1898). It was the last article he would write on the subject for the rest of the decade.

Strakhov returned briefly to the subject of the influence of extra-scientific factors on the development of science, which he had first discussed in 1872. Now, though, Strakhov took an interest in Darwin’s extrapolation of English culture to zoology. He maintained that the mutability of species was not a theory new with Darwin, and that Darwin’s theory did not build on the work of his predecessors, but rather “was built on notions that had no power in science and which Darwin had preconceived from the intellectual and moral life in which he lived as a member of his people” (Strakhov, “Development” 190):
The selection (podbor) of plants and animals is an affair with which the English occupy themselves more diligently and more skillfully than all other peoples, and Darwin thought that the forms in nature are worked out in just the same way as racehorses on a stud farm or monstrous varieties of pigeons by amateur-eccentrics. *Competition* is the law by which not only English trade and industry move, but also almost all of English life; and so Darwin sees everywhere in nature only a struggle for existence, a competition to the death. *Advantage* is the highest goal, the highest practical ideal for the English; and so Darwin does not find any meaning in all of the organs of animals and plants, in all of the traits of their organization, besides an essential advantage, namely, the survival of evils leading to extinction. (Strakhov, “Development” 191)

Here Strakhov finally made explicit what he had implied in “A Revolution the Sciences,” namely, that Darwin’s science was fully a product of his cultural environment. On the whole, though, Strakhov’s criticisms of Darwin in “On the Development of Organisms” were less personal and nationalistic and more scientific than they had been in “Followers and Opponents.”

Strakhov spent the rest of the 1873 article discussing heredity and variation, subjects that he had previously mentioned only in passing. While discussing heredity, Strakhov relied greatly on the Swiss anatomist Albert von Kölliker’s criticism of Darwin. Further, to refute Darwin’s claim to having explained the “origin of species,” Strakhov turned to Caspar Friedrich Wolff (1734-1794), one of the founders of embryology and a champion of epigenesis. For Strakhov was convinced that the key to explaining evolution would be found by understanding embryological development, noting: “If organisms
upon multiplication are subjected to a certain process of change, then this process must be similar to the process of change that takes place in every organism in its individual development” (Strakhov, “Development” 226). In fact, Strakhov, like many of his contemporaries, including Darwin, believed that ontogeny recapitulates phylogeny: “the epigenesis of any complete organism presents to us in a short time and in broad strokes a picture of the development to which all its ancestors of a direct line were subjected, beginning with the first single-cellular organism. The whole chain of generations forms a general history of development…” (Strakhov, “Development” 227-228).

Strakhov believed that it was during ontogeny that variation arose and evolution took place:

[One] needs to see in epigenesis the primary explanation of the origin of species; just as in an embryo one organization transitions to another, so species must have transitioned from one into another. All the diversity of the traits and functions of organisms must have arisen in them just as definite traits and functions arise in every embryo. In the paleontological development of organisms the same forces and causes must have acted that act in embryos in the present. (Strakhov, “Development” 228)

Thus, Strakhov argued that Darwin’s theory was incapable of providing any insight into the workings of evolution, for “[the] most detailed paleontological research and the most prolonged matings and selections of horses and pigeons will give us only the results of the process” (Strakhov, “Development” 228). Nor did Darwin explain the origin of species. To Strakhov’s mind, Darwin had only tried to explain extinction, and with limited success:
[Actually], he explained only the negative aspect of the paleontological history of organisms; he showed only that species can disappear in the *struggle for existence*; but how they arise, from where the forces appear that ought to flourish in this battle, and on which the whole meaning of the struggle depends, to this he gave vague and entirely unsatisfactory answers. (Strakhov, “Development” 229)

Thus, Strakhov failed to see the creative power of natural selection and saw only its ability to eliminate inferior variations.

“On the Development of Organisms” and “Followers and Opponents” marked yet another turning point in Strakhov’s writing. In these two works, unlike his earlier articles, Strakhov relied on the authority of various European scientists in his criticism of Darwin. In particular, he quoted Wolff, von Kolliker, and von Baer – all German scientists – at a time when he was focusing on the influence of English culture on Darwin’s work and how that culture was at odds with Russian morals and culture. Perhaps, aside from the fact that Strakhov could use them to support his argument, the three were appropriate to cite because each scientist had substantive connections with Russia. Wolff and von Baer had worked there for decades, whereas von Kolliker appears to have been elected a member-corrrespondent of the Saint-Petersburg Academy of the Sciences. Indeed, the historians of science Boris Raikov and James Allen Rogers included Wolff and von Baer in their historical studies of Russian science.66

After “On the Development of Organisms,” Strakhov did not write another article on Darwinism for more than a decade. Having unexpectedly secured various non-journalistic sources of income, Strakhov took a break from writing articles on Darwin’s

theory and began focusing his anti-Darwinian efforts on editing Danilevskii’s slowly gestating tome *Darwinism (Darvinizm)* (1885; 1889). Until 1887, Darwin’s name would appear only in Strakhov’s personal correspondence. And even then, Strakhov would say little new about Darwin’s theory. By 1873, most of Strakhov’s original criticism of Darwin was behind him.

1874-1889: Strakhov, Religion, and Danilevskii

This period of Strakhov’s anti-Darwinism is dominated primarily by his correspondence with Danilevskii and his defense of Danilevskii’s Darwinism. But there is an incident that bears mention, for it raises questions as to what Strakhov’s religious commitments were, if, indeed, he had any, and how they might bear on his rejection of Darwin’s theory. In 1877, Strakhov paid a visit with Tolstoy to the Optina Monastery, a renowned pilgrimage site, where they met with the famous elder Father Amvrosii and Father Kliment. Just days later, Strakhov’s young friend Pavel Matveev also visited the monastery. According to a letter Strakhov wrote to Tolstoy, Fathers Amvrosii and Kliment had spoken at length to Matveev about their visit. Matveev reported to Strakhov that they had described Strakhov as one whose “unbelief” is “deep” (Matveev 154). Indeed, when Matveev published a full account of the visit, in 1907, he revealed that Father Kliment had called Strakhov a “bibliophile” (“knizhnik”) saying that the only interest Strakhov had shown him was in the collection of books there: “books interest him more than anything else… [Strakhov] is a lost soul, for whom faith is only a matter of poetry” (Matveev 154-155). Strakhov’s visit to the Optina Monastery was thus not the pilgrimage one might have expected.
In general, the information that is available for reconstructing a picture of Strakhov’s religious life is marred by contradictions.\textsuperscript{67} For instance, just as his dear friend Vasilii Rozanov had written in the 1890’s, insisting that Strakhov was and always had been a believer (Rozanov, \textit{izgnanniki} 347), Strakhov can be seen describing himself as a “nonbeliever” in a letter to Tolstoy (\textit{Perepiska} 403-406). Clearly, there was something about Strakhov that made Rozanov and Nikol’skii think of him, perhaps mistakenly, as religious at a time when he self-identified as a “nonbeliever.” It may have been Strakhov’s religious upbringing or the fact that he had written extensively about topics of religious importance such as morality and spirituality. And yet, as it turns out, the question of whether or not Strakhov was religious is irrelevant, as it had no observable effect on his reception of Darwin’s theory.

Naturally, Strakhov was aware that Darwin’s theory had implications for religion. In “A Revolution in the Sciences” he had remarked that Cuvier’s belief in the fixity of species was derived from a belief in God as the Creator of the universe (Strakhov, “Revolution” 125-126); and in “On the Development of Organisms” he had claimed that “the only idea that Darwin understands completely from the science before him is what he calls the idea of “special creation,” that is, the doctrine that every species of animal and plant was created separately” (Strakhov, “Development” 193). Nevertheless, Strakhov made no attempt to defend belief in God or religion and was, as noted earlier, willing to accept that Cuvier’s theory was incorrect. Furthermore, the fact that Strakhov’s anti-Darwinist writings from the 1890’s when he self-identified as a “nonbeliever” were

consistent with those of the early 1870’s suggests that even if Strakhov had experienced a
loss of faith, his criticism of Darwin does not appear to have been based on that faith.

Correspondence with Danilevskii

Page for page, Strakhov wrote about Darwin’s theory more during the period
from 1874 to 1889 than any other period. But most of what he wrote was in defense of
his friend Danilevskii’s *Darwinism* and not to articulate his own thoughts on the theory.
The insights into Strakhov’s views on Darwin during this period come, rather, from his
correspondence with Danilevskii. On the whole, their correspondence touched little on
Darwinian theory *per se*; what little Strakhov did say about Darwin’s theory amounts to a
repetition of views he had already conveyed in print. For example, in a letter dated March
3rd, 1884, after debating the relationship between theorizing and experimentation,
Strakhov returned to the ideas about heredity that he had discussed just a decade
previously, in “On the Development of Organisms” (Strakhov, “Pis’ma” 130). Strakhov’s
correspondence does, however, clarify the personal nature of the dislike he felt for
Darwin, for in his first letter to Danilevskii Strakhov confessed:

> Inestimable Nikolai Iakovlevich, I have not been an admirer of Hegel for a long
time; but, by God, the progress of humankind will be very poor, if such minds are
to be despised and forgotten. I harbor the greatest contempt for Darwin, Mill, and
other such favorites of the current time. Just as in the last century, the French
forgot their Descartes and the Germans their Leibnitz and became infatuated with
English philosophy, so now continental Europe has grown tired of thinking and
English views are spreading through it, those of the densest people. You remarked
once that the English are devoid of refined taste; they are also devoid of any philosophical talent. (Strakhov, “Pis’ma” 128)

This letter and the casual insult it contains reveal Strakhov’s exasperation with Darwin and the admiration he had received, but, as Strakhov was certain, did not deserve. It is worth noting that, earlier, Strakhov had thought of Darwin’s theory as a product of his cultural milieu, but unlike his previous, qualified and articulated criticism to the effect that English science was simply inimical to Russian moral values, here Strakhov’s offhand remark shows the degree to which he thought of the controversy over Darwin’s theory in national and political terms.

Otherwise, their correspondence serves primarily to illustrate the fundamental ways in which Strakhov disagreed with Danilevskii about Darwin (Gerstein 159; Il’in). For example, in a letter from April 5th, 1885, Strakhov responds to Danilevskii:

Regarding *Darwinism*, [your] chapters on different and useless traits in the structure of organisms seemed wrong or not completely right. Proving uselessness is, in essence, impossible; one can negate and refute the utility that Darwin or someone else indicates, but in order to refute necessity *in general*, for all life, for the essence of some organism, for that, one needs to know that essence, to know the whole meaning, the whole scope of life, for which we can make no guarantees. General negative positions always come out unconditional, but the unconditional in thought is possible only *a priori*. (Strakhov, “Pis’ma” 136)

Clearly, one cannot assume that Danilevskii’s and Strakhov’s views on Darwinian theory were identical (Antonov, “Otsenka” 52; Gerstein 159; Il’in). Nonetheless, both men criticized the role that chance played in Darwin’s theory (Rogers, “Opposition” 499), and
many of the arguments that Danilevskii marshaled in *Darwinism* had analogues in Strakhov’s writing (Rogers, “Opposition” 499; Todes 167). But with the exception of Danilevskii’s own logical analysis of Darwin’s theory, the arguments contained in *Darwinism* were not original with Danilevskii; rather, the work was a composite of criticisms that had been made by Western European thinkers (Rogers, “Opposition” 497; Gerstein 159; Vucinich 137).

Initially, Strakhov had expressed his support for Danilevskii’s efforts in writing and by working as the editor of *Darwinism* (Strakhov, “Pis’ma” 129-132; Strakhov “Pis’ma” 462-463; Rogers, “Opposition” 497; Gerstein 159). But Danilevskii died on November 19th, 1885, just as the first volume of *Darwinism* was being published. Upon publication, the book went almost without critical notice, so it fell to Strakhov to promote it (Rogers, “Opposition” 499; Gerstein 160; Il’in). His efforts began with an article in early 1887. To generate controversy, he gave it a bold title: “A Complete Refutation of Darwinism” (“Polnoe oproverzhenie darvinizma”) and included a few quotes of Danilevskii’s in which he criticized the leading popularizer and defender of Darwinism in Russia: Kliment Timiriazev.

The article proved to be a rousing success in advertisement: Timiriazev replied, continuing the debate. And in response to Timiriazev’s own article, Strakhov wrote yet another article titled “The Darwinists’ Perpetual Mistake” (“Vsegdashniaia oshibka darvinistov”). It was only then that Strakhov admitted that he had accomplished his primary goal of drawing attention to Danilevskii’s work:

I have to admit to my readers a small trick. In my article “A Complete Refutation of Darwinism,” I insistently referred two or three times to comments of N. Ia.
Danilevskii’s about Professor Timiriazev. I did that intentionally… My primary and torturous concern was to draw the attention of our scientists to N. Ia. Danilevskii’s book, so that they would read it and look at what it brings to science. (Strakhov, “Perpetual Mistake” 66)

Strakhov’s efforts to draw attention to Darwinism went on for two more articles. The next time, though, Strakhov was responding to an article written by another pro-Darwinian Andrei Famintsyn (1835-1918), “N. Ia. Danilevskii and Darwinism: Did Danilevskii Refute Darwinism?” (“N. Ia. Danilevskii i Darvinizm: Oprovergnut li darvinizm Danilevskim?”) Strakhov’s response, “A.S. Famintsyn’s Judgment on Danilevskii’s Darwinism” (“Suzhdenie A. S. Famintsyna o Darvinizme N. Ia. Danilevskogo”) like his previous two articles, offered no insight into Strakhov’s thinking about Darwin’s theory, as it largely repeated his defense of Danilevskii. Strakhov even wrote an article titled “The Argument Resulting from N. Ia. Danilevskii’s Book” (“Spor iz-za knig N. Ia. Danilevskogo”) (1889), in which he recounted his experience of promoting and defending Danilevskii’s book.

1892: Heredity and Teleology

The next time that Strakhov wrote about Darwinism was in 1892. “The Course and Character of Contemporary Natural History” (“Khod i kharakter sovremennoi estestvennoi istorii”) was published in the third volume of The Fight with the West. The forthcoming second edition of Strakhov’s World as a Whole had given him the opportunity to reflect on the developments in biology that had taken place since the first edition was published (Strakhov, “Course” 93). But instead of broaching new aspects in his section on Darwinism, Strakhov returned to familiar topics such as the role that
authority plays in the development of the sciences and mechanistic explanations in science. He touched on Darwin’s theory only briefly.

Noting the effect that Darwin’s theory had had on the natural sciences, Strakhov wrote: it was “enormous, albeit obviously wrong,” for it “apparently solved the whole mystery of the organic world… explained the origin of the various forms of organisms together with their essential characteristic – a designed nature (Strakhov, “Course ” 105). But Strakhov found it strange that despite all of the previous morphological work that had been done to answer the question of design, none of it had figured in Darwin’s theory. Instead, Darwin had turned to organisms’ interactions with their environment to explain adaptation:

Ordinarily, however, Darwin’s merit is seen to be not in [morphology], but in that he founded a new teleology, prompting naturalists to study the relationships of organisms to each other and to the external world. Scientists left their offices and began observing the workings of life in nature, the struggle of every living being with conditions and with other living beings. There was discovery after discovery, and we learned what need and advantage the construction of organisms of any kind of trait represents, even the most trivial, the meaning of which earlier we hadn’t even suspected. Thus, as it were, a whole special science was born that they love to call by the fine name of biology. (Strakhov, “Course” 107)68

Strakhov thus conceded that Darwin had transformed biology. He even acknowledged the merit of the work done in this new biology: “All these investigations [inspired by Darwin’s theory], of course, are both interesting and useful.” Nevertheless he maintained

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68 As will become clear shortly, Strakhov does not consider Darwin to be a “true” teleologist. Rather, like Danilevskii, he thinks of him as a “pseudoteleogist” (Strakhov’s “Perpetual Mistake” 123).
that “[such investigations] dodge the direct tasks of organic morphology; they don't solve them, only go around them” (Strakhov, “Course” 107). Thus, Darwin’s theory was to blame for the fact that biology no longer sought to explain “the designed nature that every organism possesses, like the harmony of all its parts and its whole development, like the realization of the type towards which it tends. But rather [biologists] examine only the advantages and disadvantages of [an organism’s] construction in collision with surrounding chance events” (Strakhov, “Course” 107). Again Strakhov faulted Darwin for mechanizing biology; he still insisted that the natural world be studied holistically. But he also joined Darwin’s critics in taking up the topic of hereditary variation. Strakhov contended that as long as the source of variation and the mechanism of the hereditary transmission of that variation remained unknown, the question of functional morphology had only been partly answered:

Let us be completely assured that the white color of the rabbit in winter saves it in the white snow from keen-sighted predators; this does not solve the problem of what are the cause and the very process of this change in fur color. Darwinian biology states that it was an accident that is transmitted by heredity and reinforced by long selection. But where is the explanation here? If we don’t even pay attention to the fact that inheritance is largely a mysterious phenomenon, and, consequently, referring to it essentially doesn’t explain, but rather obscures the matter, then we should still ask how and why did that first rabbit turn white at the beginning of winter, that rabbit with which we begin our explanation? Only when we compose for ourselves some notion of this process will it be possible to

69 This seems to be an unfortunate choice of words, as Strakhov had, just moments before, described heredity in orthodox Darwinian terms.
discuss what significance it has for the animals and how it is connected with the other functions of its life. (Strakhov, “Course” 107-108)

Strakhov also wrote a brief preface to the second edition of *World as a Whole*. He spoke candidly there, calling Darwinism a “delusion” and returned to themes he had first developed twenty years earlier in “A Revolution in the Sciences.” Strakhov claimed, without justification, that Darwin’s theory was not “a success in the science on organisms, but a deviation from the straight path, and, no matter how interesting the particulars are that naturalists put together on this divergent path, sooner or later they will have to return to the proper paths of investigation and undertake anew the great work that they had intended avoid (Strakhov, “Predislovie” XVI). Naturalists would eventually, Strakhov thought, have to return to the work that had come to a halt because of Darwin’s theory.

He contended, “under the rule of Darwinism, naturalists don’t see the higher meaning of these investigations and ignore them” (Strakhov, “Predislovie” XVII), but rather content themselves with the “superficial” explanation provided by the notion of chance. Finally, Strakhov, gave his readers an idea of what he understood not only by “proper science,” but also “evolution”:

[For] one who looks at the matter correctly, every step [in a series of evolutionary transitions] is a manifestation of a creative principle that constructs organic forms; consequently, a every such series of forms is filled with the deepest enlightenment in all its particulars. In just the same way, we suppose that we found the use of some organ, the meaning of a given part for a given whole. For the Darwinist this is a chance goal-directed nature that has no relation to the internal development of
an organism; a true teleologist sees here how an organism tends to realize its
general goal, sees the response of a self-building being to external agitation and
circumstances. (Strakhov, “Predislovie” XVII)

Now, twenty years after publishing “A Revolution in the Sciences”, Strakhov still wanted
a progressive, teleological element that undirected variation was incapable of providing.
But now when he spoke of the harmony brought about by evolution, he did so in almost
mystical terms. In keeping with his organicism, he maintained that such a teleology and
“deeper” order did, in fact, exist; Darwinism’s mechanistic thinking had just clouded the
issue because such thinking had no place for them in his explanatory framework.
Although Darwin had described the process of evolution as taking place at the level of
the population, Strakhov saw it as an innate drive permeating every single organism.

Conclusion

Strakhov had certainly become a more prolific writer in his anti-Darwinian
period. But he was most prolific when he was writing in memory and defense of
Danilevskii; he wrote more during this period than in his other Darwin-related writings
altogether. After becoming an anti-Darwinist, Strakhov wrote only four of his own
articles. Their contents varied little despite the fact that his penultimate work “On the
Development of Organisms” and his final work on Darwin’s theory “The Course and
Character of Contemporary Natural History” were separated by almost two decades.

At one time, the subject of mankind had pervaded Strakhov’s writings. In both
“Bad Signs” and “How Man Differs from the Animals,” Darwinian theory upheld
Strakhov’s organicist conviction of human exceptionalism. And it was the realization that
humanity is the product of undirected variation and thus that Darwin’s theory did not, in
fact, support his anthropocentrism, which drove his underlying criticism in “A Revolution in the Sciences.” After 1872, he made no mention of human evolution or of humans as emblems of evolutionary progress. But the source of variation, its undirectedness, and the workings of heredity, topics that Strakhov had previously left unmentioned, now came to the fore and stayed there. Darwin’s theory of natural selection had thus superseded his theory of common descent as the primary target of Strakhov’s criticism. In switching from criticizing the implications that undirected variation had for human evolution to criticizing the source of variation itself, Strakhov had begun to criticize not what Darwin had explained, but what he had not.
CHAPTER THREE

LEV TOLSTOY: CHRISTIAN ETHICS AND ANTI-DARWINISM

Introduction

The Russian nobleman Count Lev Tolstoy (1828-1910) is known first and foremost for his contributions to world literature: through his novels War and Peace (1869) and Anna Karenina he joined the ranks of literary giants. During his lifetime, though, he also did less well remembered humanitarian work that conferred on him the status of moral leader to the nation. For example, he took a large part in the relief effort for the famine that afflicted Russian from 1891-1892. Tolstoy’s status as an international celebrity put him largely beyond the Tsar’s reach and thus enabled him to speak truth to autocratic power: he laid the blame for the famine squarely at the Tsar’s and the Orthodox Church’s feet. This was just one in a series of confrontations that Tolstoy had with them in the years following his conversion to an idiosyncratic Christianity. Only years later, he would use the proceeds of his final novel Resurrection (1899) to help fund the emigration and resettlement of a persecuted religious minority – the Dukhobors (literally, “spirit-fighters”) – in Canada. His criticism of the Orthodox Church in Resurrection proved to be a last straw, resulting in Tolstoy’s excommunication. The example he set as an unflinching defender of morality was an inspiration to moral authorities including Mahatma Gandhi (1869-1948) and later Martin Luther King Jr. (1929-1968). From the time of his conversion until the day he died, nothing was exempt from the scrutiny of Tolstoy’s moralizing gaze. Though Tolstoy had no formal scientific
training, science in general, and Darwin’s new theory of evolution in particular, came in for unrelenting and critical examination. Unsurprisingly, they were found morally wanting.

Tolstoy and the Historical Record

The moral panic that Tolstoy felt late in life because of Darwin is well established. To take a well known story, the Count left his ancestral home at Iasnaja Poliana in 1910, at the age of eighty-two, following a quarrel with his wife. Within a week, he contracted pneumonia and had to stop at the Astapovo railway station. From there he was taken to the stationmaster’s house, where he spent his last days bed-ridden (Bartlett 412). Tolstoy suspected he was dying, so, being too sick to write, he dictated to his daughter Alexandra what would be his penultimate letter. He implored his son Seryozha:

[To] think about your life, about who you are, what you are, what the meaning of human life is, and how every rational person should live it. The views you have acquired about Darwinism, evolution, and the struggle for existence won’t explain the meaning of your life and they won’t give you guidance in your actions, and a life without an explanation of its importance and meaning and without the unfailing guidance that follows from it, is a pitiful existence. Think about it. I say this, on what is probably the eve of my death, because I love you. (Tolstoi PSS 81: 300)\footnote{All translations of Tolstoy’s correspondence are my own.}
Despite the fact that Tolstoy’s antipathy to Darwin is so well known and Tolstoy’s life has been so well documented, the historical record suffers from a distinct lack of basic information as to whether Tolstoy had, in fact, read Darwin and how well he knew and understood Darwin’s work. For example, the only book by Darwin that was found in Tolstoy’s personal collection at Iasnaia Poliana was The Journey around the World and to South America (Puteshestvie na korabl’ “Bigl’”) (1895), though certain books are known to have been given away or lost. There was even a the fire that occurred when Iasnaia Poliana was briefly occupied by Nazis during the Second World War (Turner 108). Furthermore, when Tolstoy did write about Darwin, his discussions were brief and idiosyncratic. For example, Tolstoy rarely called Darwin’s theory one of “natural selection.” The only example I have found of Tolstoy’s using the word “selection” (“podbor”) comes from Anna Karenina (Tolstoi, PSS 19).71 Rather, as we will see, when he spoke of Darwin’s theory, he called it the “law of the struggle for existence.” Thus, as the literary critics Anna Berman and Richard Gustafson note, questions arise and remain unanswered not only as to whether Tolstoy ever read the Origin or Descent or whether he had only read about them in the thick journals (Berman 335), but how well he understood them (Gustafson 21). The goal of this chapter is to provide an assessment of Tolstoy’s understanding of Darwin’s ideas and the degree to which his ability to accept them changed with respect to developments in his own thinking. In particular, I examine

71 Tolstoy used what was then the standard translation of “selection”: “podbor.” As noted in the previous chapter, “podbor” was the rendering Rachinskii used in his translation of the Origin, first published in 1864. The fact that Tolstoy used “podbor,” however, establishes only that he was familiar with the Russian discussion of Darwin, not that he had, in fact, read the Origin. Indeed, Tolstoy kept himself abreast of scientific developments through Strakhov, who had begun using “podbor” in 1865.
Tolstoy’s initial ambivalence as to the relevance of Darwin’s theory to determining moral responsibility; the growth of this ambivalence into a panicked certainty that Darwinian theory undermined the very foundations of such responsibility; and, ultimately, the conviction that only through a morality founded on Christian principles are humans capable of realizing their potentially selfless nature.

1859-1869: The Early Years

When Tolstoy first encountered Darwin’s work still remains unclear. It is unlikely, however, that Tolstoy read Darwin before 1862. A polyglot, Tolstoy could have read the book in multiple languages, and by 1864, the Origin was available in at least four: following its 1859 publication in England, the Origin was translated into German in 1860, into French in 1862, and into Russian in 1864. Tolstoy’s mastery of French and his native Russian is undeniable. His proficiency in German and English in the early 1860s is, however, ambiguous. Tolstoy, thus, most likely read the Origin in French or Russian and therefore no earlier than 1862.

The earliest evidence documenting Tolstoy’s familiarity with Darwin comes in his War and Peace manuscripts. The revisions Tolstoy was making at the time Darwin’s name appears are estimated to have occurred in the late 1860s (McLean 15). The passages Tolstoy was reworking did wind up in the second epilogue that was published, yet no mention of Darwin made it into the final draft – a fact that could be explained by the contemporaneous ban on works about Darwin’s work.

72 A. V. Knowles describes Tolstoy’s 1861 trip to England and the troubles he had with English while there in “Some Aspects of L. N. Tolstoy’s Visit to London in 1861: An Examination of the Evidence” in The Slavonic and East European Review, Vol. 56, No. 1 (January, 1978): 106-114. Tolstoy himself writes to the publisher Mikahil Katkov about an article by Karl Vogt that he had his sister-in-law translate from the German into Russian (Tolstoi, PSS 68; 69).
In one reference, Darwin was listed together with other leading thinkers of the
time, such as the Russian physiologist Ivan Sechenov (1829-1905), the German
psychologist Wilhelm Wundt (1832-1920), and the English historian Henry Buckle
(1821-1862), all of whom Tolstoy vaguely described as “working in the service of the
new truth” about the malleability of character (Tolstoi, PSS 15: 315). The fact that
Tolstoy used the word “istina” instead of “pravda” to mean “truth” indicates that Tolstoy
thought their work had or was capable of having real, objective value. Indeed, as the
literary critic Hugh McLean has indicated, Tolstoy appears to have viewed Darwin here
quite favorably (McLean 15). As we will see, though, at the time that he was writing War
and Peace Darwin’s work proved to be largely irrelevant to Tolstoy’s larger exploration
of free will, determinism, and moral responsibility.

The second mention of Darwin that Tolstoy made in his War and Peace
manuscripts much more clearly illustrated this point: “The question of what this I is,
whether it can exist outside of time – are philosophical questions. But the question of
how freedom is limited by time is first of all a historical question. History looks at man in
time, and what for physiology (Sechenov, Vogt), for zoology (Darwin) is impossible, is
undoubtedly and inevitably resolved by history” (Tolstoi, PSS 15: 314). Thus, even

73 “Но в астрономии истина взяла свое. Так точно в наше время истна подвижности личности
dолжна взять свое. С разных сторон идет сложная упорная работа в пользу новой исты. Все науки
работают в ее пользу. Зоология (Дарвин), физиология (Сеченов), психология (Вунг), философия
(неразобр.), история (Бокль). Истина есть только отсутствие заблуждений, есть только новое
удобство мышлений, и потому она всегда проста, ясна и доступна, и вся трудность
восторжествования ее состоит только в победе над заблуждением” (Толстой, ПСС 15: 315).
74 Если человек, я мое, может выйти из условий времени, то я это будет иметь абсолютную свободу.
Я свободно, но вне времени. Во времени же оно имеет бесконечно малый момент. Вопросы о том,
что есть это я, может ли оно быть вне времени – суть вопросы философские.

Но вопрос ограничения свободы врменем есть первый вопрос исторический. История рассматривает
человека во времени, и то, что для физиоло(и) (Сеч(енов), Фохт), для зооло(и) (Дарвин) есть
though Darwin’s name is nowhere to be found in the final draft of the novel that was published, when Tolstoy spoke of zoology, he, at least, had Darwin in mind, and he considered Darwin’s work unsuited and irrelevant to his discussion of free will.

*War and Peace, Free Will, and Dostoevsky’s Underground Man*

Tolstoy began writing what would become *War and Peace* in 1863 and by 1865 portions were appearing in installments under the title “The Year 1805.” But by the time of their publication, Tolstoy had already started to change his mind about the course of the novel. In 1869, during this period of revision, the second epilogue Tolstoy wrote for the novel began to take shape.

The first half of Tolstoy’s second epilogue consists of a philosophical discussion about history and the nature of political and military power, and the attempts various historians have made to understand history in terms of that power. In the second half, to be discussed here, Tolstoy turns to the question of free will, arguing that removing the assumption of free will from the study of history would revolutionize the field and make possible the discovery of historical laws.

The actual relationship between determinism and free will that Tolstoy articulated in the second epilogue was, as numerous scholars have demonstrated, borrowed from Arthur Schopenhauer’s *The Two Fundamental Problems of Ethics* (1840) (Eikhenbaum 79-82; Berlin 51; Walsh 572-575; Love 42; Orwin 150-151). Yet, as we will see, Tolstoy невозможность, несомненно и неизбежно разрешается историей. История не может допустить иного. А она, именно она настаивает на рассмотрении событий с точки зрения свободы произвола А(лександра) и Н(аполеона) и своего.

Предметом истории являются массы, действующие для неизвестных нам целей по закону необходимости. И предметом изучения становятся не произволы людей, не достижение выдуманных нами целей, но изыскание соотношений между явлениями – законов (Толстой, *ПСС* 15: 314).
not only refined and updated the argument by taking contemporary scientific developments into account; he also published *War and Peace* in book form at a time when the question of free will and determinism was a topical subject of controversy in certain literary and sociopolitical journals. His attention to the topic, therefore, sheds light on an important trend in Russian thought in the 1860s.

In particular, a protracted literary polemic had taken place between the radical novelist and literary critic Nikolai Chernyshevskii (1828-1889) and the novelist and conservative journalist Fyodor Dostoevsky (1821-1881) during the first half of the 1860s. In 1860, Chernyshevskii published in the liberal journal *The Contemporary* (Sovremennik) two articles that are now known collectively as “The Anthropological Principle in Philosophy” (“Antropologicheskii printsip v filosofii”). There he sought to demonstrate that scientific findings could be used to answer moral questions. Whether or not humans have free will and, if not, whether we bear moral responsibility for our actions was one such question. Chernyshevskii sided with the determinists, writing: “all the phenomena of the moral world originate from one another and from external circumstance in conformity with the law of causality, and on this basis all assumptions that there can be any phenomena that do not arise from preceding phenomena and from external circumstances are regarded as false” (Chernyshevsky 94).

The will, of course, was no exception, for it was nothing other than “a link in a series of phenomena and facts joined together by [a] causal connection” (Chernyshevsky 95). For Chernyshevskii, the fact that the universe is governed by laws of nature rules out

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75 Generally speaking, liberals challenged the status quo, which conservatives sought to maintain.
the very possibility of free will.\textsuperscript{76} He is thus a determinist and, furthermore, what could be anachronistically called an “incompatibilist,” because he believes that determinism is true and views the possible answers to the question of whether humans have free will as mutually exclusive and jointly exhaustive. In other words, either human behavior is not subject to laws of nature, and humans therefore have free will, or their behavior is subject to such laws, and therefore they do not have free will: having free will is not compatible with being subject to the laws of nature. By contrast, “compatibilists” hold that if determinism is true, it is compatible with free will and “libertarians” believe that determinism is not only incompatible with free will, but is also not true.\textsuperscript{77}

Furthermore, given our lack of free will, it makes no sense to speak of moral responsibility. For the latest science has, Chernyshevskii insists, overturned the prevailing view that “‘in one case a man performs a bad action because he wanted to perform a bad action; and in another case he performs a good action because he wanted to perform a good action.’ [The latest science] says that the bad action, or the good action, was certainly prompted by some moral or material fact, or combination of facts, and that the ‘wanting’ was only the subjective impression which accompanies in our minds the rise of thoughts or actions from preceding thoughts, actions or external facts” (Chernyshevsky 94). That is, our actions are the products of numerous causes beyond our control; our minds simply try to make sense of our behavior --its causes and its effects--in

\textsuperscript{76} That Chernyshevskii was a determinist and therefore denied the possibility of free will is uncontroversial among scholars. See, for example, Irina Paperno’s “Recapitulation: Marriage” in Chernyshevsky and the Age of Realism; Joseph Frank’s “Notes from Underground” in Dostoevsky: A Writer in His Time; Derek Offord’s “Dostoyevsky and Chernyshevsky” in The Slavonic and East European Review, Vol. 57, No. 4 (October, 1979): 509-530; and James P. Scanlan’s “The Case against Rational Egoism in Dostoevsky’s ‘Notes from Underground,’” in Journal of the History of Ideas, Vol. 60, No. 3 (July, 1999): 549-567.

\textsuperscript{77} For a recent overview of the debate about free will, see: Fischer, John Martin, Robert Kane, Derk Pereboom, and Manuel Vargas. Four Views on Free Will. Oxford: Blackwell Publishing, 2007.
terms of what we “want.” Thus determinism is also incompatible with moral responsibility. Chernyshevskii even went so far as to claim that knowledge about human behavior, together with the fact of determinism, could be used to alter living conditions so that they would bring out only the good in people (Chernyshevsky 99). That is, science could make us better people.

Such claims were foremost among Dostoevsky’s targets in his 1864 Notes from Underground (Zapiski iz podpol’ia).

Irked by Chernyshevskii’s seemingly unbounded optimism about science’s potential to solve the moral problems of everyday life, Dostoevsky produced a character whose primary purpose was to expose the futility and dangers of such a program: the anonymous “Underground Man.”

The narrator begins his monologue by declaring:

I am a sick man…I am a wicked man. An unattractive man. I think my liver hurts. However, I don’t know a fig about my sickness, and am not sure what it is that hurts me. I am not being treated and never have been, though I respect medicine and doctors. What’s more, I am also superstitious in the extreme; well, at least enough to respect medicine…No, sir, I refuse to be treated out of wickedness. Now, you will certainly not be so good as to understand this. Well, sir, but I understand it. I will not, of course, be able to explain to you precisely who is going to suffer in this case from my wickedness; I know perfectly well that I will in

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78 For more on their polemic, see, for example, Joseph Frank’s “Notes from Underground” in Dostoevsky: A Writer in His Time; Derek Offord’s “Dostoyevsky and Chernyshevsky” in The Slavonic and East European Review, Vol. 57, No. 4 (October, 1979): 509-530; James P. Scanlan’s “The Case against Rational Egoism in Dostoevsky’s ‘Notes from Underground,’” in Journal of the History of Ideas, Vol. 60, No. 3 (July, 1999): 549-567; and David Bethea and Victoria Thorstensson’s “Darwin, Dostoevsky, and Russia’s Radical Youth” in Dostoevsky Beyond Dostoevsky.
no way ‘muck things up’ for the doctors by not taking their treatment; I know better than anyone that by all this I am harming only myself and no one else. But still, if I don’t get treated, it is out of wickedness. My liver hurts; well, then let it hurt even worse! (Dostoevsky, Notes 3-4)

Emerging from this tirade is the picture of a man consciously bent on self-destruction, and this opening proves to be just the first of many such seemingly inexplicable moments. Eventually, the narrator begins formulating a model of human nature, one that both explains his own behavior and exposes what he believes to be a faulty assumption in the model Chernyshevskii set out in “The Anthropological Principle in Philosophy.” His own behavior therefore serves as an illustration of Chernyshevskii’s error.

Despite appearances to the contrary, the narrator does not for a moment deny the reality of determinism. Indeed, he is, like Chernyshevskii, a determinist and incompatibilist. “Once it’s proved to you,” he says scornfully, “that you descended from an ape, there’s no use making a wry face, just take it for what it is” (Dostoevsky, Notes 13). All the same, he contends that though he may not be able to change the laws of nature, such powerlessness does not entail that he has to submit to them without objection. For that reason, the literary scholar Gary Saul Morson has called him an “antideterminist” (Morson 92).

Frustrated, the Underground Man even concedes that, our persisting moral intuitions notwithstanding, the fact of determinism makes the concept of moral

79 As was the case with Chernyshevskii, the fact that Dostoevsky was a determinist is accepted among scholars. See, for example, Gary Saul Morson’s “The Hazards of History” in Hidden in Plain View, Joseph Frank’s “Notes from Underground” in Dostoevsky: A Writer in His Time, and Jane Barstow’s “Dostoevsky’s ‘Notes from Underground’ versus Chernyshevsky’s ‘What Is to Be Done?’” in College Literature, Vol. 5, No. 1 (Winter, 1978), 24-33.
responsibility incoherent, writing: “Before your eyes the object vanishes, the reasons evaporate, the culprit is not to be found, the offense becomes not an offense but a *fatum*, something like a toothache, for which no one is to blame, and, consequently, what remains is again the same way out – that is, to give the wall a painful beating” (Dostoevsky, *Notes* 18). Unlike Chernyshevskii, however, the Underground Man does not believe that people act badly simply out of ignorance, and that were people to be shown what was truly in their best interests, they would start acting better. No, “all these beautiful systems,” he declares, “all these theories that explain to mankind its true, normal interest, so that, striving necessarily to attain these interests, it would at once become good and noble – all this, in my opinion, is so far only a logical exercise!” (Dostoevsky, *Notes* 22). He continues, “[For] man is so partial to systems and abstract conclusions that he is ready intentionally to distort the truth, to turn a blind eye and a deaf ear, only so as to justify his logic” (Dostoevsky, *Notes* 23). Thus, the narrator is casting doubt on an empirical assumption Chernyshevskii had made about the importance of our sense of freedom to human nature.

The Underground Man is afraid that, instead of showing humankind the error of its behavioral ways, science will only show man the truth of determinism and undermine the important role of choice in humanity’s sense of identity -- “that in fact he has neither will nor caprice, and never did have any, and that he himself is nothing but a sort of piano key or a sprig in an organ; and that, furthermore, there also exist in the world the laws of nature; so that whatever he does is done not at all according to his own wanting, but of itself, according to the laws of nature” (Dostoevsky, *Notes* 24).
The Underground Man then begins to contemplate the effect that such information would have on mankind’s sense of purpose and identity. The problem is not the truth of determinism itself, for he is willing to grant that the scientific discoveries only need to be made and “all human actions will then be calculated according to these laws, mathematically, like a table of logarithms…and entered into a calendar; or, better still, some well-meaning publications will appear…in which everything will be so precisely calculated and designated that there will no longer be any actions or adventures in the world” (Dostoevsky, Notes 24). Furthermore, he even admits that such discoveries are, in principle, possible and that in time they will become a reality because “it’s vile and senseless to believe beforehand that there are certain laws of nature which man will never learn (Dostoevsky, Notes 27).

What concerns him, though, is that the idea of choice is central to mankind’s identity. Our sense of choice “preserves for us the most important and dearest thing, that is, our personality and our individuality” (Dostoevsky, Notes 28-29). Man will even go so far as to want what is injurious to him, if only to insist on getting his way (Dostoevsky, Notes 31). Indeed, he will risk everything “with the sole purpose of confirming to himself (as if it were so very necessary) that human beings are still human beings and not piano keys…” (Dostoevsky, Notes 30).

Thus, the Underground Man contends that we as humans find meaning in understanding our lives as a series of choices for us to make. Knowing that we will come to decisions that are not made of our own free will thus deprives us of that meaning. Such knowledge – that our behavior is determined and, in particular, that we tend to act in our best interests – will inevitably cause us to irrationally mount a futile, metaphysical
rebellion against the fact of determinism and even go so far as to act self-destructively to feel in control of our lives. However, as Gary Saul Morson has noted, the Underground Man is well aware that his spiteful, self-destructive actions do not, in fact, “demonstrate his freedom; they demonstrate only the inadequacy of the most naïve models of human behavior” (Morson 91). That is, the Underground Man entertains no hopes of “breaking” the laws of nature; rather he hopes to draw critical attention to the fact that Chernyshevskii’s idealized model of human behavior and overly optimistic program of social reform ignore the unknown effects that the very knowledge of determinism could have on human behavior.

*War and Peace: The Second Epilogue*

Unlike Chernyshevskii and Dostoevsky, when Tolstoy delved into the question of free will and determinism, he looked as it were to history to test his hypotheses. The very fact that the question of whether humans have free will has gone unsolved for so long is, Tolstoy thought, because the field of history is, in effect, the study of human behavior and is practiced by humans themselves: unlike the physicists’ particle of matter, humans can and do intervene and claim that they have free will. The field of history has, as a result, been marred by historians’ continual failure to solve the question of whether humans have free will.

Like both Chernyshevskii and Dostoevsky, Tolstoy was an incompatibilist. For, as he declared: “if there is just one law that governs the actions of men, then there can be no free will, for the will of men would have to submit to that law” (Tolstoy, *War* 1200). But the problem has resisted being permanently solved owing to a discrepancy between our third-person knowledge and our first-person experience. We humans know, Tolstoy

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maintains, that our behavior is determined, but our conscious experience is characterized by an irreconcilable sense of freedom. As Tolstoy remarks,

A series of experiments and arguments shows each man that as an object of observation he is subject to certain laws, and man submits to them and never fights against the law of gravity or of impermeability, once he knows them. But that same series of experiments and arguments shows him that full freedom which he is conscious of in himself, is impossible, that his every action depends on his constitution, his character, and the motives that influence him; yet man never submits to the conclusions of these experiments and arguments. (Tolstoy, War 1201)

Despite knowing this to be true, humans cannot and do not accept it:

However many times experience and argument have shown a man that in the same conditions, with the same character, he would do the same thing he did before, he, when he sets out for the thousandth time, in the same conditions, with the same character, on an action that has always ended the same way, undoubtedly feels no less certain that he can act as he pleases than he did before the experience. (Tolstoy, War 1201-1202)

That is, we humans always believe -- to the point of absurdity-- that we “could have done otherwise.” Our conscious experience makes us simply incapable of coming to terms with what we rationally know to be true: our behavior is subject to the laws of nature. Thus, Tolstoy, like Chernyshevskii and Dostoevsky, believed at this time our behavior to be so subject and was, therefore, as is generally acknowledged, a determinist (Morson 90-92; Walsh 572; Barnhart 45; Berlin 51). Furthermore, knowing that
determinism is true, together with his belief in incompatibilism, Tolstoy insists, has far-reaching implications. Indeed, what is to become of any notions of moral responsibility if human behavior is determined? At the same time, the fact of determinism nonetheless does not explain how our conscious experience still *appears* free.

Tolstoy worried that this apparent freedom -- what he called the “other side of the question” -- would not get the scientific attention that it deserved. For those Tolstoy jeeringly called “the advanced people” had taken recent developments in science on the question of determinism to obviate the need to study our subjective experience of apparent free will. It is at this point that Tolstoy turns to Darwinism:

The soul and freedom do not exist, because the life of man is expressed in muscular movements, and muscular movements are conditioned by nervous activity; the soul and freedom do not exist, because at some unknown period of time we descended from the apes – they say, write and print, not even suspecting that thousands of years ago all religions and all thinkers not only recognized but never tried to deny that very law of necessity\(^80\) which they now try so zealously to prove by means of physiology and comparative zoology. (Tolstoy, *War* 1203)

That is, even if the work done in the natural sciences further confirms and refines our understanding of determinism, it does not address how it is that our subjective experience appears free.

It is worth noting that while Tolstoy wrote favorably, if vaguely, of Darwin in his manuscripts, the language he uses here in the second epilogue does not entail that he

\(^{80}\) By the “law of necessity” Tolstoy means “causality.”
accepted Darwin’s theory, let alone the Darwinian idea of man’s simian descent. Furthermore, as noted in the previous chapter, Darwin did not take up the topic of human evolution until *The Descent of Man*, published in 1871, two years after Tolstoy wrote the second epilogue. Thus, Tolstoy, like Dostoevsky, was, rather, presumably referring to Huxley’s *Evidence as to Man’s Place in Nature* (1863), a work inspired by the *Origin*. Again, as noted previously, two translations of Huxley’s book had appeared in Russian in 1864. However, it is also possible that both Russian writers could have been referring to the German naturalist Karl Vogt’s *Lectures on Man: His Place in Creation and in the History of the Earth*, published in Russian translation between 1863 and 1865, or to the German botanist Mathias Schleiden’s *The Antiquity of the Human Race, the Origin of Species, and the Place of Man in Nature*, which was also published in Russian in 1863. Both writers were supporters of Darwinism and both of their works on humanity’s place in nature were inspired by the *Origin* (Montgomery 82-83; 107). Without more information, though, it is impossible to say which of these Darwinist works Tolstoy and Dostoevsky had in mind.81

However, any reservations Tolstoy had on the subject were not intractable on principle. Indeed, as Tolstoy wrote:

> If men descended from the apes at an unknown period of time, that is as comprehensible as that men descended from a handful of earth at a known period of time (in the first case the $x$ is time, in the second the descent), and the question of how the consciousness of man’s freedom can be

81 Although the list made of the contents of Dostoevsky’s personal library does not include copies of any works by Huxley, Vogt, or Schleiden in any language (*Biblioteka*), such literary scholars as David Bethea and Victoria Thorstensson have taken Dostoevsky to be referring to Huxley’s *As to Man’s Place in Nature* (Bethea and Thorstensson 46).
combined with the law of necessity to which man is subject cannot be resolved by comparative physiology and zoology, for in the frog, the rabbit, and the ape we observe only muscular and nervous activity, while in man both muscular and nervous activity and consciousness. (Tolstoy, *War* 1203)

Hence, like Strakhov, whom he would meet after publishing *War and Peace*, Tolstoy showed an interest not only in knowing that humans have evolved, but also in knowing the particular path that their evolution took. Such information would make the idea of man’s simian descent more palatable; otherwise, the immensity of the time necessary for such evolution, as an abstraction, would make the idea inconceivable. Tolstoy also echoed a claim here that he had made in his manuscripts, asserting that the field of study best suited to studying humankind and solving the question of free will is history. Because zoology treated humans as just one organism among many, it was incapable of treating humans as unique. Darwin’s work was therefore irrelevant to the study of free will and determinism.

As Tolstoy looks to the field of history for answers, though, rather than discuss man’s apparent experience of free will, he subtly changes the topic to how humans judge moral responsibility based on the degree to which an act is *perceived* to have been performed freely, without constraint.

When evaluating an action, we see it, as Tolstoy claims, in terms of both freedom and necessity: “The ratio of freedom to necessity decreases or increases depending on the point of view from which the action is examined; but this ratio always remains inversely proportional” (Tolstoy, *War* 1204). Thus, as one’s actions become increasingly
constrained, one’s moral responsibility for those actions decreases proportionally. For example:

A drowning man who clutches another and drowns him, or a hungry mother, exhausted from nursing her baby, who steals food, or a man accustomed to discipline who stands in a firing squad and kills a defenseless man on command, appears less guilty, that is, less free and more subject to the law of necessity, to someone who knows the conditions these people were in, and more free to someone who does not know that the man was himself drowning, that the mother was hungry, that the soldier was in a firing squad, and so on. (Tolstoy, *War* 1204-1205)

Enlarging on Schopenhauer’s account of moral responsibility, Tolstoy further contends that our intuitions about moral responsibility follow from an evaluation of three factors: “(1) The relation of the man committing the act to the external world, (2) to time, and (3) to the causes producing the act” (Tolstoy, *War* 1205). That is, in abstraction, an act appears absolutely free and one’s moral responsibility for that act complete. But once an act is considered in all its particularities, it begins to appear less free and one’s moral responsibility diminishes proportionally. “(1)” entails that knowing that a man is drowning, as opposed to standing on dry land, or has a family to support, as opposed to lives alone, adds to our perception that his actions are less free and he is for that reason less morally culpable (Tolstoy, *War* 1205). “(2)” entails that the more recently an action takes place, the freer it will appear. As the timescale increases since an event took place, the event itself looks more fixed and less avoidable. Hence, one may sense that an event that took place moments ago could have been avoided, whereas an event that took place
years ago does not (Tolstoy, *War* 1205-1206). Finally, “(3),” a more general form of “(1),” entails that the more one knows about the person performing an act and the events leading up to that act, the less freedom and moral responsibility one attributes to him. For example, knowing that criminal was raised by criminals is a mitigating factor in our determination of his guilt (Tolstoy, *War* 1206-1207). Thus, Tolstoy concludes: “Responsibility appears greater or less, depending on a greater or lesser knowledge of the conditions in which the man whose action is being reviewed found himself and on the greater or lesser span of time from the committing of the act to the judging of it, and on the greater or less understanding of the causes of the act” (Tolstoy, *War* 1207).

Thus, when Tolstoy entered the debate on free will and determinism, he was in complete agreement with Chernyshevskii and Dostoevsky about the truth of determinism: having free will is not compatible with human behavior’s being subject to the laws of nature. They were also all ardent determinists and believed as incompatibilists that the fact of determinism left no room for moral responsibility. Their points of disagreement only became apparent when considering the practical implications of this information.

Chernyshevskii optimistically believed that humans would change their ways and act better once the truth of the matter became known to them. Dostoevsky, on the other hand, depicted a character whose model of human nature predicted that when we humans realize that we have no free will, they will become distraught and go to irrational lengths so as to feel in control of our fate. Tolstoy’s conclusions, however, are neither as optimistic as Chernyshevskii’s nor as pessimistic as Dostoevsky’s.

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82 Speaking of moral responsibility, Tolstoy makes no determinations about legal responsibility.
For Tolstoy, following Schopenhauer, articulated an explicit distinction between our knowledge of determinism from a third person, or scientific, perspective and our subjective experience of free will from a first person perspective. Until, for example, more detailed information came to light, the fact that humans and the apes share a common ancestor was practically irrelevant to behavior; Darwin’s work was therefore not pertinent yet. Such knowledge only further substantiated the truth of determinism. Admittedly, Tolstoy was much less clear about whether or not he accepted such components of Darwin’s theory as common descent and the multiplication of species. As his description of Darwin’s work in his manuscripts indicates – he used the word “istina” (“absolute truth”) -- he simply admired the work Darwin was doing. The fact that Tolstoy spoke highly of Darwin’s work, yet insisted that it was morally irrelevant stands out all the more because Tolstoy justified his later antipathy to Darwinism on the grounds that it represented a direct threat to morality.

Until such a time when science can explain our conscious experience of apparent free will, Tolstoy was content with the notion of proportional moral responsibility outlined above. Indeed, determinism was by no means as powerful and threatening a truth for Tolstoy as it was for Dostoevsky. For that reason, Tolstoy felt justified in continuing to hold humans morally responsible for their actions, though, as he was quick to point out, our everyday notions do, in fact, take into account extenuating circumstances or, that is, factors beyond our control that nonetheless determine our actions. Hence, as the number and degree of the constraints on one’s actions increase, together with our knowledge of them, the portion of one’s moral responsibility for those actions decreases proportionally.
1869-1892: The Making of an anti-Darwinist

This period marks the time when Tolstoy’s views on Darwin’s theory underwent a radical change. Before the publication of War and Peace, Tolstoy had said little about Darwin’s theory, and what he did have to say was, at best, vaguely positive, though he found Darwin’s work irrelevant to his own concerns. After he published War and Peace, Tolstoy’s attitude to Darwinism grew into a pointed antagonism, culminating in an essay he wrote in 1893 in which his views on Darwin’s theory were the diametric opposite to those he held in the late 1860’s. By then, Darwin’s theory was not only relevant to his concerns; in fact, Tolstoy found it morally pernicious.

As noted in the previous chapter, during his time at Dawn (Zaria) Strakhov wrote an article titled “War and Peace: a Work by Count Lev Tolstoy” (“Voina i mir. Sochinenie Grafa L. N. Tolstogo”). The article caught Tolstoy’s attention, and after a brief correspondence, Tolstoy invited Strakhov to visit him at his home at Iasnaia Poliana (Tolstoi, PSS 61: 314). The two men finally met in 1871 and began what would become a lifelong friendship.

Strakhov also became Tolstoy’s link to the scientific world. Through Strakhov, he was able to keep abreast of recent scientific developments. For not only did Tolstoy read and discuss Strakhov’s own writings with him, but he also sent requests to Strakhov, who lived in what was then the capital, Saint-Petersburg, asking him to find, acquire, and then send articles and books to Tolstoy at his comparatively remote estate. This was a long-lasting tendency: as late as 1893, for instance, Tolstoy would write to Strakhov, “Can you send me Huxley’s speech about evolution and ethics in English, with annotations. I read
it in Russian in *Russian Thought*. How stupid" (Tolstoi, *PSS* 66: 536). More often, though, when Tolstoy wrote to Strakhov about Darwin’s theory, it was to discuss Strakhov’s own writings on the subject. For example, in a letter dated March 3rd, 1872, Tolstoy congratulated Strakhov on the recent publication of his article “A Revolution in Science,” writing: “Your most recent article about Darwin is your most wonderful yet.” (Tolstoy, *PSS* 61: 362).

This 1872 letter marks the first time Tolstoy mentioned Darwin’s name in writing since the publication of *War and Peace*. Thus, he may have changed his mind about Darwin’s theory and become an anti-Darwinist only three years after publishing *War and Peace* in book form. However, given the fact that Strakhov used his article primarily to express his anxiety about the moral implications of Darwin’s theory, it is entirely possible that Tolstoy could share Strakhov’s concerns and still remain a Darwinist. Alternatively, since Tolstoy said nothing concrete about Strakhov’s article, it is quite possible that he was still a Darwinist, and his comment was his way of encouraging his new friend in his journalistic endeavors. In other words, Tolstoy’s views on Darwin’s theory did change after he met Strakhov, but they may not have changed because of Strakhov.

Regardless, Tolstoy continued to support Strakhov’s increasingly antagonistic anti-Darwinism. For example, Tolstoy wrote a letter to Strakhov, in 1874, about Strakhov’s recent article “On the Development of Organisms” (“O razvitii organizmov”), saying:

84 To my knowledge, this is the only letter Tolstoy sent to Strakhov asking for works related to Darwin’s theory.
85 “И статей ваших не было до нынешней прекрасной о Дарвине” (Толстой, *ПСС* 61: 362)
I thank you, dear Nikolai Nikolaevich, for sending your article about Darwin. I consumed it and felt that it was good and filling food. For me this is confirmation of my obscure, vague thoughts on the subject and an expression of what, as it were, I would like to express. One thing is surprising. The article you wrote, it will be read. It is impossible to regard it with contempt and impossible not to agree with it. But will it change even by a hair’s breadth the current opinion about some new word uttered by Darwin? Not in the least. (Tolstoi, PSS 62: 51)86

As in the previous letter, it remains unclear what, if any, of the specific criticisms that Strakhov made of Darwin’s theory Tolstoy shared at this time. The support Tolstoy showed for Strakhov’s work, however, was unmistakable. That is not to say that Tolstoy always agreed with Strakhov’s views. For example, during the late 1880s, when Strakhov undertook the daunting task of defending his late friend Danilevskii’s book Darwinism against Kliment Timiriazev’s attacks, Tolstoy encouraged Strakhov’s efforts repeatedly in writing (Tolstoi, PSS 64: 181; 64: 359) But, as becomes clear from an exchange Tolstoy had with the religious philosopher Vladimir Solovyov (1853-1900) in November of 1894, Tolstoy encouraged Strakhov’s efforts as a general practice, even if he did not agree with them. Speaking of the falling out Solovyov had with Strakhov over Danilevskii’s books, Tolstoy said: “I’m very glad that you’re not going to polemicize. Your relationship to Strakhov, I understand and share it. Mine is almost the same: I value

86 “Благодарю вас, дорогой Николай Николаевич, за присылку статьи о Дарвине; я проглотил ее и почувствовал, что это хорошая и сытная пища. Для меня это было подтверждение моих неясных мечтаний о том же предмете и выражение того, что как будто хотелось выразить. Одно удивительно. Напечатана статья, прочтут ее. Отнести к ней презрительно нельзя и не согласиться нельзя. Что ж, изменит ли она хоть на волос общее ходячее мнение о каком-то новом слове Дарвина? Нисколько” (Толстой, ПСС 62: 51).
the man, but I’m often perplexed by the judgments he makes” (Tolstoy, *PSS* 66: 283). Hence, the fact that Tolstoy read Strakhov’s writings on Darwin and supported that work does not necessarily entail that Tolstoy’s views were identical, let alone even similar to Strakhov’s.

All the same, Tolstoy’s writings do suggest that by the late 1870s, he had become highly critical of Darwinism, and his anti-Darwinism had developed in a way that was generally similar to Strakhov’s. For like Strakhov, Tolstoy felt a mounting panic in the 1870s as to the moral and spiritual implications of Darwin’s theory.

For example, in his next novel, *Anna Karenina* (serialized: 1875-1877; published as a book: 1877), Tolstoy described two protagonists -- the titular Anna Karenina and Konstantin Levin – who are shown contemplating Darwin’s theory at moments of spiritual crisis. Though their crises have different causes, their varying success in resolving them is correlated with their belief about what, if anything, Darwinian theory means for everyday life. Indeed, as the literary scholar Anna Berman has pointed out, Levin experiences a crisis of faith as he struggles to reconcile his moral beliefs with the developments of modern science. He ultimately rejects Darwin’s theory, declaring:

“Where could I have got it? By reason could I have arrived at knowing that I must love my neighbor and not oppress him? I was told that in my childhood, and I believed it gladly, for they told me what was already in my soul…Reason discovered the struggle for existence, and the law that requires us to oppress all who hinder the satisfaction of our desires. That is the deduction of reason. But

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87 “Очень радуюсь тому, что вы не будете полемизировать. Ваше отношение к Страхову я понимаю и разделяю. Мое почти такое же: я дорожу человеком, но недоумеваю часто перед его суждениями” (Толстой, *ПСС* 66: 283).
loving one’s neighbor reason could never discover, because it’s irrational.”

(Tolstoy, Karenina 1142)

With Levin’s carefully reasoned rejection of Darwinian theory comes a spiritual awakening (Berman 349-350).

Karenina, on the other hand, takes the Darwinian struggle for existence to heart. During her time in Italy she makes a visit with her lover Aleksei Vronskii to the studio of an artist named Mikhailov. Accompanying them on their visit is a friend, Golenishchev, who tells them about the artist’s background, describing it in terms of the changes taking place within society at large:

“[In] former days the free-thinker was a man who had been brought up in ideas of religion, law, and morality, and only through conflict and struggle came to free thought; but now there has sprung up a new type of born free-thinkers who grow up without even having heard of principles of morality or of religion, of the existence of authorities, who grow up directly in ideas of negation in everything, that is to say, savages…In old times, you see, a man who wanted to educate himself—a Frenchman, for instance—would have set to work to study all the classics and theologians and tragedians and historians and philosophers, and, you know, all the intellectual work that came in his way. But in our day he goes straight for the literature of negation, very quickly assimilates all the extracts of the science of negation, and he’s ready. And that’s not all—twenty years ago he would have found in that literature traces of conflict with authorities, with the creeds of the ages; he would have perceived from this conflict that there was something else; but now he comes at once upon a literature in which the old
creeds do not even furnish matter for discussion, but it is stated baldly that there is nothing else—evolution, natural selection, struggle for existence—and that’s all.”

(Tolstoy, *Karenina* 675)

Golenishchev thus connects Darwin’s theory with nihilism and its unconditional rejection of traditional values. Karenina eventually comes to see her discord with Vronskii in Darwinian terms, with the word “struggle” haunting her increasingly bleak thoughts until the carriage ride she takes right before committing suicide (Berman 348-349).

Clearly, by the time Tolstoy was writing *Anna Karenina* he had become keenly aware of the potential moral danger that a Darwinian worldview based on interminable struggle represented. He made sure to spell out this threat for his readers in Levin’s and Karenina’s respective interactions with Darwinism. Such a critique was also sure to be met with sympathy from Mikhail Katkov (1818-1887), the conservative editor of *The Russian Herald* (*Russkii vestnik*), where *Anna Karenina* was serialized.

It is worth noting that Kliment Timiriazev (1843-1920), the leading Russian Darwinist, felt the need to respond to what he believed was Tolstoy’s inaccurate depiction of Darwin’s theory in *Anna Karenina*. In a public lecture given at Moscow University in 1878, a year after Tolstoy had finished the novel (Timiriazev, “Obrazets” 28), Timiriazev criticized Tolstoy frankly:

Instead of justifying and defending [Darwin’s theory], I have to ask the accuser a question, - a question that, I admit, is extremely impolite in well-mannered society, even unacceptable, but is, unfortunately, almost always unavoidable when dealing with Darwin’s opponents and accusers. The question is: have you
read the book that you so eloquently denounce? And, not waiting for an answer, one can reply: no, you haven’t read it. (Timiriazev, “Obrazets” 45)

Timiriazev called Levin’s Darwin an “enemy created by his own imagination” (Timiriazev, “Obrazets” 45) after noting that Darwin had, in fact, given an explanation for how morality could evolve in The Descent of Man (1871). The fact that Timiriazev even felt the need to respond to a literary depiction of Darwin’s theory speaks to the cultural capital Tolstoy had accrued by this point.

As he was finishing writing Anna Karenina, Tolstoy experienced a spiritual crisis of his own, a crisis that ended in his converting to an idiosyncratic Christianity that would touch every aspect of his thinking, including Darwinism. Although there was a brief interval following the publication of Anna Karenina when Tolstoy did not write about Darwin’s theory, by the mid-1880s he revisited it, and the effects of his conversion were there for all to see.

Tolstoy returned to Darwin’s theory in the book So What are We to Do? (Tak chto zhe nam delat’?), written from 1884-1886. There Tolstoy criticized the institutions of science and the Russian Orthodox Church alike for what he considered to be, at the very least, their complacency in the face of rampant moral turpitude, if not outright complicity by inaction. When Tolstoy finally brought up Darwin, he did so in connection with the influence Thomas Robert Malthus had had on the formulation of Darwin’s theory through

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88 “Вместо того чтобы оправдываться, защищаться, приходится задать один вопрос самому обвинителю, -- вопрос, сознаюсь, крайне невежливый, в благовоспитанном обществе даже нетерпимый, но, к сожалению, неизбежный почти всегда, когда приходится иметь дело с противниками и обличителями Дарвина, это вопрос: читали ли вы эту книгу, которую так красноречиво обличаете? И, не дожидаясь ответа, можно ответить: нет, не читали” (Тимирязев, “Образец” 45).

89 “А так как он этого ничего не знает, то, очевидно, борется против врага, созданного его собственным воображением, понаслышке, на лету, подхватив одно слово ‘борьба’” (Тимирязев, “Образец” 45).
his *Essay on the Principle of Population* (1798). Tolstoy had nothing but contempt for Malthus:

A very commonplace English writer, whose books are now almost forgotten and recognized as the emptiest of all empty ones, wrote a tract upon population, in which he invented an imaginary law that the means of living does not increase with increase of population. This sham law the author dressed out with formulae of mathematics, which have no foundation whatever, and published it. Judged by the lightness of mind and the want of talent displayed in this treatise, we might suppose that it would have passed unnoticed, and been forgotten as all other writings of the same author have been; but it turned out quite differently. The author who wrote it became at once a scientific authority, and has maintained this high position for nearly half a century. Malthus! (Tolstoy, *What?* 188)

The core of Tolstoy’s criticism was that Malthus’ theory lacked empirical support:

The Malthusian theory, -- the law of the increase of population in geometrical progression, and the increase of means of living in arithmetical progression, and the natural and prudent means of restraining the increase of population, -- all these became scientific, undoubted truths which have never been verified, but being accepted as axioms, have served for further deductions. (Tolstoy, *What?* 188)

As Tolstoy himself indicated, he would not have cared about Malthus’ theory if it were not for contemporary Russian scientists’ continued and adamant refusal to admit that their work had any moral significance. Nor was Tolstoy alone in his criticism of Malthus. As the Daniel P. Todes has demonstrated, criticizing the Malthusian component of Darwin’s theory proved to be an almost distinctively Russian response in the
international reception of Darwin’s theory. Todes suggests that this shared response stemmed from the basic conditions of life in Russian including its class structure, political conditions, and the nature of its land and climate. In particular, he noted:

Russia’s political economy lacked a dynamic pro-laissez faire bourgeoisie and was dominated by landowners and peasants. The leading political tendencies, monarchism and a socialist-oriented populism, shared a cooperative social ethos and a distaste for the competitive individualism widely associated with Malthus and Great Britain. Furthermore, Russia was an expansive, sparsely populated land with swiftly changing and often severe climate. It is difficult to imagine a setting less consonant with Malthus’s notion that organisms were pressed constantly into mutual conflict by population pressures on limited space and resources. (Todes 168)

As for Tolstoy, while he readily admitted that Malthus’ theory of population had turned out to be widely influential, itself serving as the basis for Darwin’s theory, he could not sit idly by as it was used to justify iniquities in the name of science: “At first it appears strange,” he admitted, “that the theory of evolution justifies men in their unrighteousness, and that the scientific theory has only to do with facts, and does nothing else than observe facts. But it only seems so” (Tolstoy, What? 189).

Tolstoy’s criticism contrasts sharply with the deterministic views he had laid out in the second epilogue of War and Peace. In 1869, Tolstoy had championed a philosophy of determinism that was incompatible with free will. He had declared that all behavior is determined and that there is no such thing as free will. His discussion of moral responsibility had come in the context of our apparently conscious experience of having
free will. Although Tolstoy, to my knowledge, never explicitly disavowed his previous
claims -- about Darwin’s theory only further substantiating the truth of determinism and
being irrelevant to our understanding of moral responsibility until it could be brought to
bear on our understanding of our conscious experience of free will--, the fact that Tolstoy
criticized Darwin’s and Malthus’ theories for moral reasons indicates a radical shift in his
moral philosophy. By the mid-1880s, Tolstoy was worried that Darwin’s theory, based on
Malthus’, was turning from an explanation of behavior into an excuse for immoral
behavior. That is not to say that human behavior had become any less determined
following the publication of the Origin. Rather, knowledge of Darwin’s theory had itself
become a cause with its own effects. Tolstoy was writing So What are We to Do? to
counteract this dangerous tendency.

The book also contains Tolstoy’s most substantial discussion of multiple aspects
of Darwin’s theory. For example, Tolstoy questioned Darwin’s theories of common
descent and the multiplication of species, writing:

And now among all the idle play of ideas of so-called men of science, there also
appeared a similarly arbitrary and incorrect assertion, not a new one at all, to the
effect that all living beings, that is, organisms, proceed one from another; not only
one organism from another, but one organism from any; that during a very long
period, a million of years for instance, not only a fish and a duck may have
proceeded from one and the same forefather, but also one organism might have
proceeded from many separate organisms; so, for instance, out of a swarm of bees
a single animal may proceed. (Tolstoy, What? 194)

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Tolstoy was not simply balking on principle at the idea of common descent; for him it was a matter of empirical support. He called the idea of common descent “arbitrary” because, as he pointed out, “nobody has ever seen how one kind of organism is made from others; and therefore the hypothesis about the origin of species will always remain a mere supposition, and never will become an experimental fact” (Tolstoy, What? 194). Without empirical verification, Darwin’s theory of the origin of species, was, as Tolstoy had said in 1869, “the mere iteration of the question in another form” (Tolstoy, What? 194).

In other words, since no one had observed a speciation event, Darwin’s theory remained an untested hypothesis. As such, the theory had no more practical relevance than the solution the Biblical Moses had offered that “the variety of the species of living beings proceeded from the will of God and His infinite omnipotence” (Tolstoy, What? 194). Darwin’s theory offered only the alternative explanation that “the variety of species of living beings proceeded by themselves in consequence of the infinite variety of conditions of inheritance and environment in an infinite period of time (Tolstoy, What? 194-195). Tolstoy saw such an explanation in much the same way that Strakhov had in “A Revolution in Science” (1872), insisting that it amounted to nothing more than the assertion that “by chance in an infinite period of time anything you like may proceed from anything else you choose” (Tolstoy, What? 195).

What had once been a vaguely positive acceptance of Darwin’s theory had become an unambiguously critical rejection. In 1869 Tolstoy had certainly seemed to accept many of the components of Darwin’s theory, including the theories of common descent, the multiplication of species, and gradualism. At the time these components had
simply been irrelevant to the scientific question of conscious experience that so interested him. Now, in 1885, Tolstoy’s criticism called into question whether he had, in fact, accepted them then, in 1869, and for what reasons, since he was to change his mind and question the evidentiary basis of Darwin’s theory, nearly two decades later.

Ultimately, though, after his conversion Tolstoy’s chief concern became humanity’s failure to observe ethical norms true to Christ’s teachings. For that reason, his criticism centered, unsurprisingly, on the practical effects that Darwin’s theory had on morality. He concluded:

Two unstable theories [those of Darwin and Malthus], which could not stand upon their own feet, supported each other, and received a show of stability. Both theories bore in them a sense, precious for the crowd, that for the existing evil in human societies men are not to be blamed, that the existing order is what ought to be, and thus the new theory was accepted by the crowd in the sense which was wanted by them, with full confidence and unprecedented enthusiasm. (Tolstoy, What? 195)

Before writing his last, substantial criticism of Darwin’s theory, Tolstoy would publish his novella The Kreutzer Sonata (Kreutserova Sonata) (1889). The passing barbs he made there at Darwinism would elicit a similar response as his comments in Anna Karenina had. Now, though, it was not Timiriazev, but his fellow zoologist Il’ia Mechnikov who came to Darwin’s defense in his “Law of Life: Concerning Several Works by Prince Lev Tolstoy” (“Zakon zhizni: po povodu nekotorykh proizvedenii gr. L. Tolstogo”) (1891).
Although Tolstoy’s *Kreutzer Sonata* had led Mechnikov to write the article, “The Law of Life” was not about the *Kreutzer Sonata per se*. Published in *The Herald of Europe (Vestnik Evropy)*, it was a response to what Mechnikov saw as the more general philosophy of life that Tolstoy had been developing in the years since his conversion. Though Mechnikov had various objections to Tolstoy’s philosophy, they were reducible to a single underlying criticism: Tolstoy was ignorant of the very science he so adamantly opposed.

Fundamental to Tolstoy’s philosophy was an idea of “naturalness.” “‘A bird,’ [Tolstoy] says, ‘so constructed that it has to fly, to walk, to peck, to think, and when it does all of this, it is satisfied, happy – then it is a bird. In just the same way man, when he walks, turns, rises, drags, works with his fingers, eyes, ears, tongue, brain, only then is he satisfied, only then is he man…” (Mechnikov, “Life” 238). As he turned to discuss Tolstoy’s insistence that human happiness will come only from a return to a more “natural” way of living, Mechnikov remarked that Tolstoy’s prioritizing regular manual labor in his schedule of daily “natural” activities, “obviously, did not leave [himself] enough time to familiarize himself with a lot of scientific questions, concerning which he often offers harsh and completely untrue judgments (for example, about Darwinism, about the uselessness of research, about protoplasm, and much else)” (Mechnikov, “Life” 253). In taking too simple a view of the world, Tolstoy had been led astray, Mechnikov

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90 “‘Птица,’ - говорит он, - 'так устроена, что ей необходимо летать, ходить, клевать, соображать, и когда она все это делает, тогда она удовлетворена, счастлива - тогда она птица. Точно так же и человек, когда он ходит, ворочает, поднимает, таскает, работает пальцами, глазами, ушами, языком, мозгом, тогда только он удовлетворен, тогда только он – человек…’”

91 “Чересчур продолжительное упражнение мышечной системы, очевидно, не оставило ему достаточно времени, чтобы ознакомиться со многими научными вопросами, относительно которых он часто высказывает очень резкие и совершенно неверные суждения (например, о дарвинизме, о бесполезности исследований, о протоплазме и о мн. др.).”
maintained, and in his ignorance failed to notice that animal behavior often diverged from its morphology. Just because a bird has wings does not entail that it should or needs to fly to lead a “natural” and happy life. Mechnikov called to mind such flightless birds as ostriches and penguin to show that it makes no sense to insist that they are not really birds unless they actually take flight. Mechnikov was particularly worried about the effects of such thinking when applied to humans. He did not agree with Tolstoy, for example, that being physiologically capable of having children means that women will be happy only giving birth to and raising children and therefore that all women should devote their lives to being mothers.

Mechnikov concluded that for such a philosophy as Tolstoy’s to have a chance of being successfully implemented, the philosopher must have a thorough understanding of the organism’s nature – its morphology and behavior -- he is trying to modify, an understanding that comes from such science as Darwin’s theory: “The establishment of the latter [a preconceived ideal] is not a matter of simple fantasy or whimsy; in order to chart an ideal that we could realize, a precise knowledge of the nature of the organism and an adequate portion of initiative are needed” (Mechnikov, “Life” 265). Tolstoy had, thus, for the second time in less than fifteen years, been criticized by a leading scientist for lacking a basic understanding of the very science he felt the need to so obdurately criticize.

The last time Tolstoy wrote at length about Darwinism was in an 1893 essay he wrote partly in response to the T. H. Huxley’s Romanes lecture, “Evolution and Ethics,”

92 “Установление последнего [предвзятого идеала] не есть дело простой фантазии или прихоти; для того, чтобы наметить идеал, который бы был осуществим, необходимо точное знание природы организма и достаточная доля инициативы.”
given earlier that year. Tolstoy published “Religion and Morality” (“Religiia i nравственность”) in Für Ethische Kultur (For Ethical Culture), a German Ethical Culture journal. Its founder, Georg von Gizychki, had written to Tolstoy to commission an essay that answered two personal questions: “(1) What [Tolstoy understood] by the word ‘religion,’ and (2) [Did he] consider it possible for morality to exist independently of religion, as [he understood] it” (Tolstoy, “Morality” 131).

The definition of religion Tolstoy gave in response was idiosyncratically broad:

> From the most elevated to the most primitive, there is not one single religion that does not have as its basis the establishment of man’s relationship to the universe around him, or to its first cause…All religious teaching is an expression of the religious attitude of the founder when he acknowledged his relationship as a man (and subsequently that of all other people) to the universe, or its origin and first cause. (Tolstoy, “Morality” 135)

Using this definition, Tolstoy found three fundamentally distinct types of religion: “(1) the primitive person, (2) the pagan-social or family-State and (3) the Christian or divine” (Tolstoy, “Morality” 135). The first, which Tolstoy considered the “lowest,” entailed the cosmological belief that man exists “for the purpose of attaining the greatest possible personal well-being, irrespective of the degree of suffering this may cause others” (Tolstoy, “Morality” 135). The second underlying metaphysical belief asserts that “the meaning of life [is not] in the well-being of one separate individual, but in the well-being of a certain aggregate of people: family, tribe, nation, State, or even humanity (the Positivist attempt at religion)” (Tolstoy, “Morality” 136). Finally, the third worldview, Tolstoy vaguely declares, consists in “man no longer recognizing the meaning of life in
the fulfillment of personal ambitions, or the ambitions of any aggregate of people, but solely in service to the Will that created him, as well as the entire universe, for the purpose of achieving not his own aims, but the aims of that Will” (Tolstoy, “Morality” 136). Although numerous religions share a comparable belief, Tolstoy was convinced that it “received its complete and final expression in true and unperverted form in Christianity” (Tolstoy, “Morality” 136). By no means, though, did Tolstoy have the Russian Orthodox Church in mind, which he considered to be one such perversion. Rather, only such sects as the Russian Dukhobors qualified as “true” Christianity and belonged on the top rung of Tolstoy’s religious hierarchy.

It follows from Tolstoy’s broad definition of religion that everyone has some basic religious belief. And morality, according to Tolstoy, is a set of behavioral norms that follows from trying to maintain such a religious worldview: “morality is the indication and explanation of those activities which automatically result when a person maintains one or another relationship to the universe” (Tolstoy, “Morality” 142). By Tolstoy’s broad definition of religion, then, there is also no such thing as a morality that can exist independently of religion, nor can there be a person without a religion. Everyone therefore conforms to some kind of morality. For that reason, even science itself is guided by morality and therefore religion. Science is therefore fundamentally religious, because its practitioners observe the moral principles derived from their worldview. Those principles, in turn, determine what research is worth pursuing:

Science has always been, and always will be, not the study of “everything” as today’s scientists naively believe (this is impossible, for this is an incalculable number of objects subject to inquiry), but is merely a study of those things put
forward by religion, in strict order according to their degree of importance, from an incalculable quantity of objects, phenomena and conditions demanding investigation. (Tolstoy, “Morality” 138)

Tolstoy considered the science of his contemporaries to be “paganism” under the guise of Christianity because it amounted to “no more than an examination of all those conditions conducive to man’s greatest well-being, and of all the phenomena in the universe that can help attain it” (Tolstoy, “Morality” 139). That is, though such scientists may have thought of themselves as Christians, because of their scientific pursuit of humankind’s increased well-being, Tolstoy considered them “pagans.” Such pagan science was irreconcilable with the basic tenets of Christianity, for, Tolstoy insists, “true” Christianity maintains that “all men are equal and that it is better for a man to give his own life in service to others than to compel others to serve him, thereby trampling on their lives” (Tolstoy, “Morality” 146).

Tolstoy asserted that the leading discipline of pagan science, on the other hand, was the budding field of evolutionary biology. Evolutionary biology was in his opinion rooted in a morality that values well-being above all else. For that reason, he asserts:

No kind of sophism or twists of thought can undermine the simple and clear proposition that the law of evolution, which lies at the basis of contemporary science, is based on the general, eternal and unalterable law of the struggle for existence and the survival of the fittest; a law saying that each person, in order to attain his own well-being and that of his group, must be one of the fittest and make sure that his group is the same, so that it is not his group but another, less fit, that perishes. (Tolstoy, “Morality” 146)
Tolstoy was, without a doubt, responding to Darwin’s theory, but the immediate reason for writing this article was not a work Darwin had written. Darwin had died in 1882, but T. H. Huxley’s recent lecture on the evolution of ethics had appeared in Russian just as Tolstoy was writing “Religion and Morality” (Tolstoy, “Morality” 147). The appearance of “Evolution and Ethics” in Russian was not simply fortuitous and therefore incidental to Tolstoy’s essay. Tolstoy had, in fact, specially crafted his definition of Christianity with Huxley’s article in mind, so as to avoid what he saw as the ethical pitfalls of Darwinian theory.

Huxley had argued that although humans undoubtedly have been and still remain subject to natural selection, for us to succeed at living in societies we must quell the violent and selfish urges that historically brought our species such great success in our evolutionary past:

[The] practice of that which is ethically best – what we call goodness or virtue – involves a course of conduct which, in all respects, is opposed to that which leads to success in the cosmic struggle for existence. In place of ruthless self-assertion it demands self-restraint; in place of thrusting aside, or treading down, all competitors, it requires that the individual shall help his fellows; its influence is directed, not so much to the survival of the fittest, as to the fitting of as many as possible to survive. It repudiates the gladiatorial theory of existence. (Huxley, Ethics 81-82)

Huxley called the measure of how much the “cosmic” process had been replaced by the “ethical” process “social progress.”
Tolstoy, however, contended that such a solution, based as it was on the very pagan science that presupposed the struggle for existence, could not alter our basic relationship to one another and to the universe; it would only change the scale of the struggle. For “[if] the law of the struggle for the existence and survival of the fittest is the eternal law of the living (and it must be recognized as such when man is regarded as an animal), then this law cannot be infringed upon by any ornate arguments about social progress, or about an ethical code that is supposed to emanate from it” (Tolstoy, “Morality” 148). In other words, because pagan science views humans as animals and participants in the struggle for existence, they will always remain so. Indeed, “[the] struggle will always remain the struggle, i. e. an activity that fundamentally excludes the possibility of adopting the Christian morality we profess” (Tolstoy, “Morality” 149). At best, the progress that such pagan scientists seek will only pit ever-larger groups against each other, and “the very same struggle and survival of the fittest will continue among families, clans, and nations” (Tolstoy, “Morality” 148).

Thus, although the pagan religions and Christianity share the goal of reducing the sum total of human suffering, for Tolstoy the pagan religions cannot lead to genuine altruism. That is, the members of a group are working to ensure the well-being of the group only because in doing so they maintain their own, individual well-being. This conception of human cooperation has recently been called the “veneer theory” because even what appears to be genuine cooperation is still ultimately motivated by self-interest. For a contemporary discussion of veneer theory, see Frans de Waal’s “Morally Evolved: Primate Social Instincts, Human Morality, and the Rise and Fall of ‘Veneer Theory’” in *Primates and Philosophers*.
cooperation because, by taking care of others so as to fulfill God’s will, Christians, according to Tolstoy, avoid even the appearance of self-interest.

Tolstoy is thus no longer interested in the results of human actions alone, but in the motivations underlying those actions. Tolstoy’s contemporary Piotr Kropotkin (1842-1921) also rejected Huxley’s claim that humans are not naturally virtuous, in a series of articles that later became his book *Mutual Aid* (1902). But unlike Kropotkin, Tolstoy’s religious theory of moral motivation breaks cooperation down into a combination of biology and culture, for it depends on which of Tolstoy’s three “religions” one practices. Hence, Tolstoy does not so much deny the ability of non-Christians to cooperate as he does disapprove of the underlying utilitarian motives of their behavior. For that reason, identical actions are not necessarily equally praiseworthy. Indeed, for Tolstoy only Christians were capable of truly realizing their innate cooperative potential.

By implication, Tolstoy also rejects Darwin’s theory, though according to his conception of religion, the reality of Darwin’s theory is only relative, because the struggle for existence would take place only among those whose metaphysical relationship to the universe sets ultimate store by well-being. That is, by Tolstoy’s reasoning, if every person were converted to “true” Christianity, the struggle for existence would somehow be brought to an end and Darwin’s theory would cease to be true.

**Conclusion**

Tolstoy’s thinking on the subject would not change after publishing “Religion and Morality.” Tolstoy continued to hold Darwin in the greatest contempt for the rest of his life. What had begun as vague admiration for Darwin ultimately ended in unequivocal
disdain. Initially, Tolstoy had, in his declaration of determinism in the second epilogue of *War and Peace*, insisted that Darwin’s theory only added to the growing body of evidence in favor of determinism, but did nothing to explain humankind’s persisting sense of free will and therefore had no bearing on the calculation of moral responsibility. After Tolstoy met Strakhov, though, Tolstoy became concerned about the moral implications of Darwin’s theory, though his criticisms and Strakhov’s on this topic bear only a vague resemblance.

As he finished *Anna Karenina*, the moral crisis and resultant conversion Tolstoy underwent turned into the primary drivers in his criticism of Darwinism. By the mid-1880s he began to lament the insidious potential of science to affect morality adversely, proclaiming that Darwin’s theory did, in fact, pertain to moral responsibility. For as Tolstoy maintained, not only did the theory tell humans nothing useful about their place in the cosmos, but it was also being used as an excuse to act immorally.

The last time Tolstoy wrote about Darwin’s theory in depth marked yet another turning point, as he began to consider the moral foundations of a Darwinian worldview. In Tolstoy’s view, a worldview that accepted the truth of the struggle for existence was uniquely based on enlightened self-interest, whereas belief in “true” Christianity could give rise to a morality capable of genuine altruism.

The fact that for the last twenty years of his life Tolstoy referred to Darwin’s theory as the “law of the struggle for existence,” not to mention that he argued that Christianity could inexplicably bring the struggle for existence to a halt, calls into question how well Tolstoy actually understood the very science he increasingly and adamantly criticized. Admittedly, Tolstoy had never explicitly said that he accepted
Darwin’s theory of natural selection. In fact, it appears that the only time Tolstoy used the word “selection” in writing was in *Anna Karenina*. He did, however, write about Darwin’s various component theories. He brought up the theories of common descent, the multiplication of species, and gradualism in *War and Peace*, but rendered no verdict, saying only that the idea of human evolution would be more palatable if its particular evolutionary path were known. He returned to the theories of common descent and the multiplication of species in the 1880s, again pointing out that they lacked the empirical support needed to make them viable components of humanity’s cosmology. Finally, in 1893, Tolstoy implied that a universal conversion to Christianity would abolish the “law” of the struggle for existence. Whether Tolstoy actually believed what he wrote or simply sought to undermine the perceived relevance to morality that Darwin’s theory enjoyed is unclear. Nevertheless, such scientific authorities as Il’ia Mechnikov and Kliment Timiriazev felt compelled to speak up about the undue influence they feared a moral figure such as Tolstoy could have on the public discourse surrounding Darwin’s theory—particularly given what they saw as his scientific illiteracy (Mechnikov, “Life” 253; Timiriazev, “Obrazets” 45). Indeed, as Timiriazev himself had assured his readers after the publication of *Anna Karenina*, he did not think Tolstoy had read, let alone actually understood, Darwin’s theory (Timiriazev, “Obrazets” 45).
CHAPTER FOUR
VLADIMIR SOLOVYOV: DARWINIAN IDEALISM, DARWINIAN THEISM

Introduction

Vladimir Vladimirovich Solovyov (1853-1900) is most well known outside of Russia for his close friendship with the novelist Fyodor Dostoevsky. It is generally thought, in fact, that Dostoevsky’s characters Alyosha and Ivan Karamazov, from The Brothers Karamazov (Brat’ia Karamazovy) (Serialized in 1879-1880; published in book form in 1880), were modeled, in part, on Solovyov (Kostalevsky 66). In Russia, however, Solovyov is usually considered its premier religious philosopher, known for a mystical view of the universe and of love that proved vastly influential for a group of Russian Symbolist writers at the turn of the twentieth century. While by no means a Biblical literalist, Solovyov looked to the Bible not only for moral guidance but also for cues as to the origin and nature of the universe. For that reason, it is actually not entirely surprising that, having come of age in a Russia galvanized by Darwin’s Origin, the mystical philosopher Solovyov wrote about Darwin’s various theories throughout his career. Indeed, Solovyov came to admire the English naturalist and his work ardently, though, of course, he had to make compromises in order to accommodate Darwin’s theories while also maintaining his commitments to specific religious and philosophical ideas.

With the exception of the historian of science Alexander Vucinich, who conflated Solovyov’s general criticism of materialism with an opposition to Darwinism (Vucinich 135; 259), scholars tend to acknowledge, if only in passing, Solovyov’s sympathetic
attitude and general effort to integrate Darwinism into his own work (Soloyov, *Sophia* 151; Smith 96-99; Matich 62-65). Only the literary scholar David Bethea has, however, done a study in any detail of how Solovyov used Darwinism in his own thinking. In particular, Bethea emphasizes the way in which Solovyov built on Darwin’s work to show how beauty—what initially had only a reproductive function—became something of aesthetic value, appreciable independently of reproduction. The goal of this chapter is to fill in a gap in the scholarship as to how Solovyov used Darwin’s theories in his wide-ranging philosophical writings over approximately thirty years. In particular, I will trace how Solovyov’s anthropocentrism forced him to downplay, rework, and ultimately critique the utilitarian nature of Darwin’s theories—all the while perhaps paradoxically continuing to express his support for the scientist.

1853-1875: The Early Years

Little is known about Solovyov’s early response to Darwinism. He fell under the sway of positivism and materialism shortly after entering Moscow University in 1869 and for that reason transferred from the Department of History and Philology to that of Physics and Mathematics (Kornblatt 13). Describing Solovyov’s infatuation with materialism, Lev Lopatin, a philosopher and friend, recalled:

There was a time in his life when he was a total materialist… I never met a materialist with more passionate convictions. This was a typical nihilist of the 1860’s. It seemed to him that a new truth had been revealed in the basic premises of materialism, which had to replace and supplant all previous beliefs, to upset all human ideals and notions, to create a completely new, happy, and rational life… Already during this period as a student he was an expert on Darwin's writings. He
believed with all his soul that through the famous naturalist's theory not only all teleology, but also all theology and idealistic prejudices would be brought to an end. (Lopatin 123)\(^{94}\)

This materialist phase proved brief: three years later Solovyov submitted a petition to withdraw from his studies while also applying to take the exit examinations in the Department of History and Philology. He ultimately managed to receive a degree from that department in June 1873 without having completed any classes as a student there (Kornblatt 13). Notwithstanding Lopatin’s reminiscences, the earliest extant documents of Solovyov himself recording his thoughts on Darwinism date back only to 1876.

1876: Darwin and Solovyov’s *The Sophia*

Although Solovyov’s first published work on Darwin’s theory did not come out until 1889, that publication was by no means the first time Solovyov had written on the subject. When he first turned his hand to Darwin’s theory, he did so in French, in a chapter of his book *The Sophia*, a genre-defying work that Solovyov never finished and was published only after his death. He wrote “The Second Dialogue: The Cosmic and Historical Process” during a month-long stop he made in Sorrento, Italy, in March of 1876. He was on his way back to Russia after having spent nearly a year conducting research at the British Museum in London. While this period in Solovyov’s life is

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\(^{94}\) “Была пора в его жизни, когда он был совершенным материалистом… Я никогда потом не встречал материалиста, столь страстно убежденного. Это был типичный нигилист шестидесятых годов. Ему казалось, что в основных началах материализма открывается та новая истина, которая должна заменить и вытеснить все прежние верования, перевернуть все человеческие идеалы и понятия, создать совсем новую, счастливую и разумную жизнь… Ещё в эпоху своего студенчества отличный знаток сочинений Дарвина, он всей душой верил, что теорией этого знаменитого натуралиста раз навсегда положен конец не только всякой теологии, но и всякой теологии, вообще всяким идеалистическим предрассудкам” (Лопатин 123).
generally known to literary scholars as the time when he did research into Gnostic philosophy and searched for manifestations of a mystical female force he named the Divine Sophia, he also spent time during this period meeting, among other people, the British naturalist, co-discoverer of natural selection, and budding spiritualist Alfred Russel Wallace (1823-1913).95

Solovyov’s first mention of Darwin’s theory of evolution by natural selection comes in the midst of a discussion on the nature and origin of the universe. Solovyov describes the universe as the result of a cosmic struggle between Satan and what Solovyov calls, using Gnostic terminology, the “Demiurge,” or the God of the Hebrew Bible. According to Solovyov, the resulting conditions of the universe made the Earth inhabitable, facilitating “organic development” or evolution. Correspondingly, the “World Soul” produced the first “living soul” or “an organism in the true sense of the word” (Solovyov, Sophia 151). The initial conditions on Earth were, however, by no means perfect or unchanging, and as they changed and became more favorable over time, the old “types” were – metaphorically speaking – abandoned by the World Soul in favor of new ones. Such is Solovyov’s explanation of the fossil record. The more enduring forms would, on the other hand, continue to be developed using “all natural means,” forms that the Demiurge had chosen, through unbroken natural law, to house a soul (Solovyov, Sophia 151).

95 Aside from the fact that the meeting took place, nothing is known about it. Indeed, all Solovyov wrote in a letter to his parents from London, dated September 20 1875, was: “As for Englishmen, I met the famous zoologist Wallace, which gives me the pleasure of being in a real village: He lives about forty versts from London” (“Из англичан познакомился со знаменитым зоологом Wallace'ом, что доставляет мне удовольствие бывать иногда в настоящей деревне, - он живет верстах в 40 от Лондона”). (Solov’iov, Pis’ma 11).
In one passage that Solovyov had crossed out but remains legible, he insisted that every soul is the issue of a single creation event. Organisms’ bodies are what Solovyov at one point evocatively called “rough drafts” or temporary dwelling places (Solovyov, *Sophia* 152). All of the organisms that died and the species that went extinct did not have souls unique to them, but rather as conditions came to favor “more perfect organisms,” these souls transmigrated to those organisms, completing just one of many such transmigrations.

In yet another such passage, Solovyov explains that the souls themselves also evolve as they ascend each new rung on the “cosmogonic ladder” (Solovyov, *Sophia* 151). The “zoological step represented by fish,” for example, “exists because there are souls whose character is best expressed by the organism of the fish. But fish of a certain previous geological period were only temporary dwellings for the ichthyomorphic souls that animate today’s fish” (Solovyov, *Sophia* 152). Solovyov even granted that the fishes of his own day would likely continue to evolve.

Foremost among the mechanisms of evolution that Solovyov accepted was natural selection or what he also called the means of “[becoming] capable of being the seat of the most elevated souls” (Solovyov, *Sophia* 152). He did not, however, accept that natural selection was the only mechanism of evolutionary change. Nor was Solovyov inclined to accept that “the organic world follows an uninterrupted development departing from a single source, a single root” (Solovyov, *Sophia* 152), though the misgivings he had were a matter of principle and not based empirical findings. “Nature,” he insisted “is not obligated to follow a direct line, when it could disperse life in various different directions” (Solovyov, *Sophia* 152). In denying that there had to be a single, shared origin
of life from which all current organisms are descended, Solovyov did not oppose the idea that today’s organisms evolved from a shared ancestor, only a theory of *universal* common descent.

Solovyov also broke with Darwin on the subject of human evolution, maintaining that “the goal of the cosmic process is the realization of the soul and of God in the soul….the production of a perfect organism. Man is such an organism” (Solovyov, *Sophia* 152). He deviated even further from Darwinian orthodoxy when he then declared: “But an individual human is not Man: Man is Humanity. The human organism is not the organism of an individual man, which is only the perfection of the animal organism; the truly human organism is the social organism” (Solovyov, *Sophia* 152-153). Solovyov would not, however, go so far as to claim that humans are exempt from the workings of natural selection. “[T]he cosmic battle,” he wrote, “must repeat itself in the human world” (Solovyov, *Sophia* 152). Solovyov even shared with Darwin a similar sentiment that such strife could be overcome by what Solovyov called “the power of love” (Solovyov, *Sophia* 157). Darwin himself had maintained in the *Descent* that as societies grow and smaller groups unite to form larger groups, “the simplest reason would tell each individual that he ought to extend his social instincts and sympathies to all the members of the same nation, though personally unknown to him. This point being once reached, there is only an artificial barrier to prevent his sympathies extending to the men of all nations and races” (Darwin, *Descent* 147).

Thus, Solovyov incorporated various parts of Darwin’s theory into his own worldview of theistic evolutionism. Explicitly, he adopted Darwin’s theory of the multiplication of species, natural selection, and evolution as such, and while he did accept
a theory of common descent, he did not accept descent from a single origin, nor did he accept Darwin’s theory of gradual evolution or “uninterrupted development” (Solovyov, *Sophia* 152). As we will see shortly, Solovyov’s variegated take on Darwinism would go largely unchanged in the years to come, even as he turned from questions of cosmology to those of aesthetics and ethics. In particular, his anthropocentrism would remain a fixture that dominated his thinking. Yet, as Solovyov wrote about Darwinism in greater depth, beginning with “Beauty in Nature” (“Krasota v prirode”) (1889), the trade-offs that he had to make in order to maintain his belief in the unconditional value of humankind would reveal an abiding strain of anti-utilitarianism in Solovyov’s thinking, one that clashed at times with the Darwinian views he continued to find so intriguing.

1889: Sexual Selection and Aesthetics

Solovyov had long been a regular contributor to conservative publications. But his ties with conservative circles frayed somewhat following a lecture Solovyov gave in 1881. Responding to Tsar Alexander II’s assassination, Solovyov publicly called upon Alexander II’s successor, his son Alexander III, to demonstrate Russia’s true Christian nature by having mercy on his father’s assassins and commuting their death penalties to exile in Siberia. The new Tsar rejected what was seen as inappropriate meddling; Solovyov lost his job at Moscow University; and he became disillusioned with conservatism, ceasing to publish in conservative journals (Kornblatt 19) Hence years later, when he published “Beauty in Nature” in 1889, it was in the inaugural edition of the newly founded liberal journal *Questions of Philosophy and Psychology* (*Voprosy filosofii i psikhologii*).
The goal Solovyov set for himself in writing “Beauty in Nature” was clear-cut: to articulate a theory of natural aesthetics, which he intended later to form the bedrock for a general philosophy of art. Crucial to his aesthetic theory were the claims that beauty has an objective existence, regardless of whether there is a subject present to behold it, and that beauty cannot be defined in terms of its material utility. For that reason, Solovyov argued that the study of beauty and its nature was not within the purview of the natural sciences; only the study of the origin of “aesthetic feelings belongs to the sphere of biology and psycho-physiology” (Solovyov, “Beauty” 33). The study of beauty itself belongs rather to philosophy. It is worth noting though that Solovyov was quick to distance himself from both the positivist-utilitarians and the abstract metaphysicists, two prevalent schools of philosophical thought on art. The former, he felt, sought to downplay the intrinsic value of beauty, preferring instead to focus how it was used, while the latter’s program was relativistic and therefore, Solovyov thought, incapable of telling the difference between beauty and ugliness (Solovyov, “Beauty” 34).

When Solovyov spoke of beauty, he understood it in the sense of an abstract, metaphysical, Platonic Idea. He considered a particular object of beauty to be just an instantiation of that ethereal Idea; how beautiful the object is depends on the degree to which its material form did “not negate the universal, but [gave] it a place in itself…” (Solovyov, “Beauty” 39). As Solovyov turned to particular examples to illustrate what precisely obstructs or facilitates the expression of beauty, a distinct hierarchy emerges. He compares an intestinal worm and a diamond, noting that while a worm is a living organism, a diamond is made up of inorganic matter. Of the two, Solovyov believes that organic matter is intrinsically more beautiful because of its greater complexity: “In a very
simple organism we find an aggregate of a greater number of particular parts and a greater unity of them than in the most perfect stone” (Solovyov, “Beauty” 40). However, when the diamond is compared with other minerals, Solovyov contends that it is more “perfect” than its rivals: “a diamond is an object perfect in its kind, for nowhere does such a force of strength or impermeability unite with such radiance; nowhere does one meet such a striking and subtle play of light in such a solid body” (Solovyov, “Beauty” 40). The worm, on the other hand, is relatively simple: “Even though a worm is already, according to the chemical composition of its tissues, a body more complex than a diamond, the organization of this body is most simplified and meager” (Solovyov, “Beauty” 40). What emerges is then a hierarchy of relative organizational complexity or what Solovyov variously calls “complexity,” “differentiation,” or “heterogeneity.” That is, even though the worm is intrinsically more complex than the diamond, when the diamond is compared with other minerals, it is relatively more complex than the worm is in comparison with other animals and the diamond is therefore more beautiful.

Given the anthropocentric worldview he laid out in 1876, it should come as no surprise that Solovyov placed mankind at the peak of this hierarchy of natural beauty (Solovyov, “Beauty” 66). But he also had to confront the fact that the animal kingdom is not made up exclusively of ever more beautiful organisms, as his hierarchy would predict. He was therefore, forced to reconsider how strong the correlation is between these two variables – beauty and complexity - and ultimately reformulated it, concluding that it is just the “potentiality” of “new and more perfected embodiments of the all-unity idea in beautiful forms” that is revealed “on each new stage of universal development, with each new living extension and complexity of natural existence” (Solovyov,
“Beauty” 55). An increase in complexity is thus positively correlated with an increasing potential to be beautiful, though this potential is not always realized.

All that remained for Solovyov to do then was to demonstrate how his hierarchy could explain the existence of ugliness. To do so, he used what had become a favorite example: the intestinal worm. Its form, Solovyov declared,

is a direct expression, or the embodiment laid bare, of two fundamental animal instincts – the sexual and the alimentary in all their immeasurable insatiability. This is clearest of all in those intestinal worms that feed with all their essence, with the entire exterior of their body through endosmosis (sucki
ing), and thus do not display any organs, apart from the sexual; and these display a striking contrast with the extreme simplification of all the remaining organization in their powerful development and complex structure. (Solovyov, “Beauty” 56)

Thus, ugliness is manifested when morphological and behavioral features associated with eating and reproducing are not just conspicuous, but also somehow out of harmony relative to the organism’s general degree of development. Solovyov considered the worm’s sex organs overdeveloped because for its relatively simple organization, they seemed too complex and, more importantly, obvious. He is repelled by the unadulterated animalistic quality -- or what he calls the “excessive development of material brutality” -- of the intestinal worm’s body (Solovyov, “Beauty” 59). Such a response was, of course, predictable; Solovyov did, after all, maintain from the outset that beauty could not be understood in terms of utility. He found the intestinal worm’s sex organs grotesque precisely because they were recognizable as such.
Solovyov brought up Darwinism throughout the essay, though he did not discuss it in any length until the end. Once, for example, he referred in passing to the theory that current beauty is an indicator of a formerly adaptive trait that is no longer useful: “In a bold application of Darwinism, it is possible to extend this understanding of former utility very far, and to count not only monkeys and seals, but very likely even oysters as our ancestors as well” (Solovyov, “Beauty” 32). Thus, over a decade after his earlier writing on Darwinism Solovyov still seemed to accept some kind of theory of common descent. He also made it clear that he still opposed an inerrant Biblical literalism, holding that the world was not created perfect and unchanging. Indeed, it cannot be doubted, he wrote, that “the organic world is not a product of so-called spontaneous creation…for in such a case it would have had to display absolute undisturbed perfection and harmony not only in the whole, but also in all of its parts” (Solovyov, “Beauty” 50). The fossil record as a catalogue of extinction events was all the proof Solovyov needed to be sure of this (Solovyov, “Beauty” 51). He described it in evocative language reminiscent of his 1876 writings:

We see here manifest signs of an internal struggle, jolts and convulsive concussions, blind and groping motions; an unfinished draft of unsuccessful creations –so many monstrous results and miscarriages! All these paleozoans, these antediluvian oddities: megatherms, plesiosaurs, ichthyosaurs, pterodactyls – could they be perfect and direct creations of God? (Solovyov, “Beauty” 51)

And as he had done before, he allotted humans a special place in the universe:

The biological goal itself, moreover, appears two-fold: on the one hand, organic types are stages (in part transient, in part permanent) of a general biological
process that arrives at the creation of the human body from primitive mold; but, on the other hand, these types can be regarded as members of a universal organism, having an independent significance in the life of the whole. (Solovyov, “Beauty” 50)

Thus, although the universe was not created perfect, with specific organisms inhabiting it, the appearance of humankind is one of the two goals towards which the action of unbroken natural law is directed. For that reason, he called the emergence of humans a “retarded [zamedlennoe] and painful birth” (Solovyov, “Beauty” 51).

As Solovyov finally turned to Darwin’s theory of sexual selection, he praised the “great” Darwin, in whom he made the surprising claim of having found a fellow champion of his theory of the non-utilitarian, objective existence of beauty:

At a time when many rectilinear minds attempted to reduce human aesthetics to utilitarian bases in the interests of a positivistic-scientific worldview, the greatest representative of this very worldview in our century [Darwin] showed the independence of aesthetic motive from utilitarian goals even in the animal kingdom, and upon this positively based an authentically ideal aesthetic for the first time. (Solovyov, “Beauty” 51)

This alleged contribution alone, Solovyov insisted, would be enough to “immortalize the name of Darwin,” even if “he were not the author of the theory of [the] origin of species by natural selection in the struggle for existence”(Solovyov, “Beauty” 51). This idiosyncratic interpretation of Darwin’s body of work was indeed Solovyov’s own invention.
Solovyov then gave a fairly uncontroversial sketch for his readers of how sexual selection works, stating:

The life of an animal is determined by two major interests: to maintain itself by means of nourishment and to perpetuate its form by means of reproduction… the cosmic Artist makes this sexual attraction not only for perpetuation, but also for the adornment of given animal forms. Individuals of the energetic sex, males, pursue the female and struggle with one another on account of her; and here it turns out, says Darwin, despite all foreknowledge, that the capacity to entice the female in different ways has in certain cases a greater significance than the capability to defeat other males in open struggle. (Solovyov, “Beauty” 61-62)

To be sure, in making such unabashed reference to divine influence in the evolutionary process, Solovyov makes it clear that he has no pretensions to being a strict methodological naturalist as Darwin was. By no means did Solovyov limit his worldview to beliefs that were scientifically testable. All the same, he did recognize the importance of both intersexual and intrasexual competition to sexual selection.

It was, rather, in how he understood the relationship between natural and sexual selection that Solovyov departed most notably from Darwinian orthodoxy. He certainly appreciated the role that beauty plays in reproduction, for he noted that “Almost all [birds] base their conjugal success on the display of one or another aesthetic attribute” (Solovyov, “Beauty” 64). But Solovyov sought to cast the idea of “utility” solely in terms of defense and survival. Drawing on the same examples Darwin had used in his *Descent of Man*, Solovyov, in effect, reformulated natural selection by omitting the logical and empirical connection between survival and reproduction. Noting, as he does,
for example, that the males of certain tropical butterfly species have particularly beautiful wings, though the females do not, Solovyov concludes that this disparity alone “shows that the beauty of wings cannot serve the utilitarian goals of defense in the struggle for existence (through the likening of an insect to the flower on which it sits, and so forth); females are no less in want of such a defense than males” (Solovyov, “Beauty” 63). He is, however, willing to admit that there is sometimes a link between utilitarian and “aesthetic-sexual” goals:

[In] many specimens it is noted that precisely the lower exterior of the wings, i.e., that which is turned outward in the sitting, most dangerous position, is completely the color of the plant on which the butterfly lands (obviously for the sake of defense); while the upper exterior, which the flitting male shows to the female during courtship, is painted and drawn with such freakish elegance that it cannot have any relation to the goals of defense. (Solovyov, “Beauty” 63)

Solovyov was ultimately unconcerned by this, though, and left it to his readers to discover in Darwin’s work “still many other particular evidences that show beyond doubt the predominant action of a purely aesthetic factor here” (Solovyov, “Beauty” 63-64).

He concludes his analysis of sexual selection with a discussion of what is now called “Fisherian” or “runaway” selection.96 “In many specimens,” Solovyov noted, “the complex adornments of males not only cannot have any utilitarian significance, but are directly harmful, for they develop [to the] detriment [of] their agility – and interrupt their ability to fly or run and betray them to their pursuing enemy…” (Solovyov, “Beauty” 64-65). However, because such instances support only his non-Darwinian belief in the non-

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96 For more on Fisherian selection, see Ronald Fisher’s “Sexual Reproduction and Sexual Selection” in his *The Genetical Theory of Natural Selection* (1930).
utilitarian nature of beauty and not his belief in its objective existence, he shows finally that different organisms often share a sense of beauty:

The purely contemplative susceptibility of certain birds to the beauty of colors is proven by the fact that they pay attention and admire bright colors not only similar to themselves, but wherever they might find them, for example, on women’s dresses or hats. Diligent adornment of nests by certain birds – for example, hummingbirds, which put the finishing touches on them with the most nuanced taste – also undoubtedly proves the presence in birds of an objective-aesthetic sense. (Solovyov, “Beauty” 65)

That is, if beauty is not itself the product of evolution and does not have a utilitarian value, the fact that both humans and birds find similar objects beautiful makes sense only if beauty exists independently of its beholders. Solovyov says nothing, though, of the relative quality of their capacities to appreciate beauty, only that the capacity to appreciate beauty is, in general, a product of evolution and that both birds and humans share a general sense of beauty.

Thus, after outlining the generalizations underpinning his hierarchy of relative organizational complexity, Solovyov turned to Darwinism for further support. The intestinal worm is a specimen of such extreme ugliness, Solovyov had maintained, precisely because its external morphology is so blatantly useful to survival and reproduction. Solovyov contended that Darwin’s theory of sexual selection, in effect, supported this claim by showing that not only do beautiful traits not increase an organism’s chances of surviving, but also sometimes, in fact, reduce them. It does not, for
that reason, make sense to view these traits as serving such utilitarian goals as defense or survival.

It is worth noting Solovyov’s paradoxical praise of Darwin for discovering natural selection. For in reworking Darwin’s theory of sexual selection to support his own claims about the objective and non-utilitarian existence of beauty, Solovyov obscured the importance that Darwin had given to beauty and reproduction in natural selection. That is, natural selection, by definition, relates not only to survival in the struggle for existence – what Solovyov describes as “defense” – but also ultimately to reproduction. There can be no natural selection and therefore no adaptive evolution without both differential survival and reproduction.

It was not for nothing, though, that Solovyov clung to such an idiosyncratic understanding of Darwinism. For if beautiful objects are, as Solovyov declared, the objective instantiations of the Idea of beauty and their beauty does not depend on an individual’s subjective evaluation per se, then Solovyov can only grant that an organism’s capacity for appreciating beauty is subject to evolution. Otherwise, if organisms find objects beautiful only because seeing them as beautiful is somehow useful in the struggle for existence, then beauty is neither objective nor non-utilitarian. Such are the compromises that Solovyov had to make in order to both maintain his idealist philosophical commitments and be a Darwinian. Indeed, as noted earlier, Michael Ruse has noted that such failures to share all of Darwin’s conclusions about the evolutionary process were common to the leading proponents of Darwinism at the time. Neither Thomas Henry Huxley nor Alfred Russel Wallace – both dear friends of Darwin and ardent, self-styled Darwinians – accepted all of Darwin’s various theories. Huxley, for
example, was unconvinced about the efficacy of natural selection. Writing of his disappointing attempt to characterize the word “Darwinian” in his seminal book *The Darwinian Revolution*, Ruse said: “Different people believe very different things, and the same people believe different things at different times – and yet rally under the same banner… In the end, I had to be satisfied with some mushy sociological notion. A ‘Darwinian’ was someone who thought of himself as a Darwinian, or some such thing” (Ruse, “Punctuated Equilibria” 120). Determining whether one was a Darwinian at this time was, in effect, a sociological issue of self-identification.

Thus, Solovyov’s specific beliefs about Darwin’s various theories had, on the whole, changed little since 1876. He still believed in an imperfect, though created, world, where evolution was directed inexorably towards the emergence of humans through unbroken natural law. Now, though, when Solovyov justified his anthropocentrism, he did so in terms of relative organizational complexity. He also still accepted that species went extinct and that new species arose and continue to arise, though he remained skeptical as to universal common descent. The most significant development in his thinking on Darwin’s various theories came in his discussion of natural and sexual selection. For although Solovyov still adamantly praised Darwin for his discovery of natural selection, the way he spoke of sexual selection suggests that either he did not understand its relation to natural selection in the same way Darwin himself had or he deliberately ignored it.

Had he adhered to the concepts of sexual and natural selection, as Darwin had articulated them, Solovyov would have risked leaving the justification of his anthropocentrism open to question. For admitting the utilitarian importance of beauty to
selection would make the place humans occupy at the top of his hierarchy of complexity and the potential beauty that that position entails into products of evolution and would therefore no longer be guaranteed.

A Response to “Beauty in Nature”

In 1895, over half a decade later, a series of articles appeared in what might be considered a belated response to “Beauty in Nature.” Most significantly, the religious philosopher Vasili Rozanov (1856-1919), an admirer of Solovyov, published “What Does Nature’s Beauty Express?” (“Chto vyrazaet soboiu krasota prirody?”)\(^{97}\) in Russian Review (Russkoe obozrenie). Rozanov was ambivalent about “Beauty in Nature,” for while he shared Solovyov’s predilection for teleology, Rozanov found grounds for criticism as well. First, he claimed that Solovyov, in fact, hewed too closely to an orthodox interpretation of Darwin’s theory (Rozanov 4). After describing the utilitarianism running through Darwin’s theory of natural selection, Rozanov writes: “In the field under consideration, in the field of the phenomena of beauty, Mr. Solovyov finds it convenient to repeat precisely this train of thought and here almost repeating Darwin, makes the mistakes we mentioned as very crude, and wanted to correct them” (Rozanov 4).\(^{98}\) It is worth remembering that Solovyov’s understanding of natural and sexual selection, as noted above, were remarkable for their unorthodoxy.

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\(^{97}\) It was later republished as “Beauty in Nature and Its Meaning” (Krasota v prirode i ee smysl’) (Rozanov 1).

\(^{98}\) “В данной рассматриваемой области, в области явлений красоты, г. Вл. Соловьев находит удобным повторить этот именно круг мысли, -- и здесь-то, почти повторя Ч. Дарвина, он и впадает в те ошибки, о которых мы упомянули, как об очень грубых, и хотели бы их поправить.” (Rozanov 4).
Ironically, because he believed that Solovyov’s Darwinism did not deviate from Darwin’s own views, Rozanov then criticized the Darwinian notion of female choice at the center of sexual selection so as to make an opening to build on Solovyov’s theory of beauty (Rozanov 8). In place of sexual selection, Rozanov advanced a vague notion of “life energy” as the true source of beauty: “[beauty] appears everywhere and invariably where life energy undergoes a rise in its exertion” (Rozanov 9). Evolution and the resulting changes in “life force” that it produces are driven, according to Rozanov, by an external, teleological force. “When the source of the effect lies ahead or after it [the effect] – we call it a goal…Thus, it is not a cause, hidden in the depths of time that is the moving principle of the whole organic process, but – a goal, lying in the future, unknown to us…” (Rozanov 13). Thus, for Rozanov – not unlike Solovyov--, evolution has a purpose. For that reason, an organism’s evolution represents progress and the organism becomes more and more “evolved” as it comes closer fulfilling this evolutionary purpose. Such progress consisted of increasing complexity: “All things being equal, the greater the quantity of life energy contained in every organism (compared with other organisms), the more evolved its organic form, that is, the more numerous and diverse its functions and the more distinct and exclusive each of them is” (Rozanov 11). In other words, “1) the complexity of organization and 2) the abundance of diverse functions (those no resembling one another), performed in that organization can serve as an undoubted

99 “[Красота] повсюду и неизменно является там, где жизненная энергия повышается в своем напряжении” (Rozanov 9).
100 “Когда источник действия лежит впереди или после его – мы называем его целью…Таким образом – не причина, скрытая в глуби времен, есть двигающее начало всего органического процесса; но -- цель, лежащая в будущем и нам еще неизвестная…” (Rozanov 13).
101 “При равенстве прочих условий, количество жизненной энергии, заключённой в каждом организме, тем более (в нем сравнительно с другими организмами), чем развитее его органическое сложение, т. е. Чем многочисленнее и разнообразнее его функции и чем отчетливее и исключительно каждая из них” (Rozanov 11).
criterion of the degree of the exertion of life energy on all rungs of the plant and animal world” (Rozanov 11).\textsuperscript{102} Ironically, for all his criticism of Darwin here and elsewhere Rozanov’s conception of increasing morphological complexity as evolutionary progress bears a striking resemblance to the notions of evolutionary progress Darwin (and Herbert Spencer) articulated.\textsuperscript{103}

Ultimately, complexity ties together Rozanov’s notions of life energy and beauty: “Negligible beauty, on the lower rungs of organic development, grows in proportion as this development is pushed ahead in time and forms transition from simpler to more complex, that is, become bearers of higher life exertion, of a greater amount of organic energy” (Rozanov 16).\textsuperscript{104} Hence, beauty is not for Rozanov, as David Bethea maintains, “the fact that pulls us forward in nature’s plan” (Bethea, “Modernism” 132); rather, beauty is only a measure of complexity, life energy, and evolutionary progress. Rozanov thus expanded on Solovyov’s hierarchy of relative organizational complexity, reducing morphological complexity further to a vague notion of “life energy.”

1892-1894: The Meaning of Love

Solovyov did not discuss Darwin’s theory in depth again until the publication of his 1897 book The Justification of the Good (Opravdanie dobra), though he did casually mention “selection” in a series of articles he wrote between 1892-1894 that would eventually be collected in a short book titled The Meaning of Love (Smysl liubvi). He

\begin{enumerate}
\item \textsuperscript{102} “Таким образом, 1) сложность организации и 2) обилие своеобразных (одна на другую не похожих) функций, в ней совершаемых, может служить несомненным критериумом степени напряжения жизненной энергии на всех ступенях растительного и животного мира” (Rozanov 11).
\item \textsuperscript{103} For more on Darwin’s and Spencer’s notions of evolutionary progress, see: Michael Ruse’s Monad to Man: The Concept of Progress in Evolutionary Biology.
\item \textsuperscript{104} “Незначительная на низших ступенях органического развития, красота возрастает по мере того, как это развитие подвигается по времени, и формы из более простых переходят в более сложные, т. е. становятся носителями высшего жизненного напряжения, большого количества органической энергии” (Rozanov 16).
\end{enumerate}
wrote, for example, of the “providential selection of procreators” (Solovyov, “Love” 89) and that “sexual competition and selection... [serve] the procreation of more perfect organisms” (Solovyov, “Love” 91). The reasons that he wrote the articles, however, were predominately religious, for in them Solovyov maintained that the purpose of sexual love in humans is not the reproduction of the species, as many at the time supposed, but ultimately the unification of humankind through the power of God’s grace. Created as a sexually reproducing species in God’s image – with males and females –, humans had, Solovyov declared, to achieve unity in love in order to put those halves together and reconstruct the whole of God’s image. By the word “love,” however, Solovyov did not mean the act of sex itself. His own idiosyncratic notion entailed, rather, the act of recognizing in another person the unconditional value that, Solovyov claimed, humans, in their unmitigated egoism, instinctually confer only on themselves. This unconditional value is underwritten by God.

*The Meaning of Love* thus reminds us that Solovyov is first and foremost a religious philosopher. His worldview is not limited by science; rather, his anthropocentric, religious and philosophical beliefs constrain the science he accepts. Hence, Solovyov understands the meaning of sex here, as in “Beauty in Nature,” in a way that upholds the idea that humans have intrinsic value.

1897: Darwin and Morality

Solovyov’s return to Darwin’s theory in the opening chapter of *The Justification of the Good* (1897) was marked by a palpable change in his attitude to Darwin. Indeed, as Solovyov turned to the topic of morality and the work Darwin had done on the subject in
his “The Primary Data of Morality,” Solovyov still showed great respect for Darwin. Now, though, he took frank exception to certain aspects of Darwin’s work.

Convinced that the success of observing a moral teaching depends on its being rooted in mankind’s moral nature, Solovyov turned to demonstrating that humans have an innate capacity for moral behavior. He maintained that this capacity – whether the product of evolution or creation – is what distinguishes humans from animals (Solovyov, Good 25). Darwin, Solovyov noted, also believed that the vast difference in innate “moral sentiment” separated man from the animals. But Solovyov thought that Darwin went too far in his theorizing and got “carried away by his desire – within certain limits a legitimate one – to fill up the ‘immense’ distance by intermediary links,” leading him to make one basic error:

He regards all human morality as in the first instance social, thus connecting it with the social instincts of animals. Personal or individual morality has, according to Darwin, merely a derivative significance, and is a later result of historical evolution. He maintains that the only virtues that exist for savages are those that are required by the interests of their social group. (Solovyov, Good 26)

Solovyov took issue here with Darwin’s idea that morality is an adaptation, that in facilitating cooperation among individuals within a group, morality increases the chances that the individual members of the group will survive. Morality is therefore not absolute and unchanging. Such moral behavior is considered good because it improved its adherents chances of survival, not because morality is inherently so. Of course, social interactions played a crucial role in Solovyov’s philosophy, as seen in The Meaning of Love, but the power of morality is, for Solovyov, backed by religion and acting morally is
a means to a religious end. The fact that Darwin was interested in showing that animals also display moral behavior likely upset Solovyov because it challenged his anthropocentrism. For, taken together, Darwin’s claims that morality is an evolved social adaptation and that both humans and animals exhibit such behavior fly in the face of Solovyov’s assertion that humans occupy a special place in the animal kingdom.

To disprove Darwin’s contention that morality is an adaptive social phenomenon, Solovyov turned to a moral sentiment he believed had no social purpose: shame. In particular, Solovyov was interested in the shame associated with sex because, he was convinced, animals do not experience it, but “the most savage and undeveloped man is ashamed of – i.e. recognizes as wrong – and conceals a physiological act which not only satisfies his own desire and need, but is, moreover, useful and necessary for the preservation of the species” (Solovyov, *Good* 26). For Solovyov’s argument, it was important to show that a sense of shame is species-typical among humans; otherwise, not only are humans not special for their capacity to create and follow moral norms, but the variation in moral norms among humans could be explained as having its origins in the adaptive value of cooperation, and morality would therefore have no absolute foundation. Thus, Solovyov criticized Darwin, who, he claims, baselessly denied that “savages” possess a sense of shame. He concludes:

It is obvious that it would not be necessary for Darwin to use such unconvincing indirect arguments in support of his view could he produce any trustworthy facts to show the presence of even rudimentary modesty among animals. But there are no such facts, and shame undoubtedly remains, even from the external and
empirical point of view, the distinguishing characteristic of man. (Solovyov, *Good* 28)

Having a sense of shame is important for Solovyov not only because it separates humans from the animals, but also because of what this sensation reveals about human nature. By feeling shame associated with sex when sex is seen as an act of material, animal existence, we humans show that we are something “other and higher” and therefore partly immaterial (Solovyov, *Good* 29). Solovyov even criticizes Darwin for failing to discuss sexual shame in *The Descent of Man*, though as Solovyov himself claims, a sense of shame could have no utilitarian or adaptive value (Solovyov, *Good* 29-30). Rather, Solovyov contends that sex itself is inherently shameful. A sense of shame therefore serves as a “reminder” that our spiritual human dignity is “safe in the depths of our being” (Solovyov, *Good* 31).

From a sense of shame, Solovyov then moves on to feelings of pity and reverence. Unlike shame and its indication of man’s relation to material, animal nature, Solovyov associates a sense of “pity” – for him construed as sympathy or compassion - with man’s relationship to his fellow man (Solovyov, *Good* 32). Solovyov acknowledges that scientists agree that a sense of “pity” is not unique to humans (Solovyov, *Good* 32), but he does not yield to the scientific consensus that this sense is what we would now call “sociobiological.” Paradoxically, he asserts, “In its essence...[the sense of pity] is an individual moral state, and even in the case of animals it is not reducible to social relations, much less so in the case of man. If the need for a social unit were the only foundation of pity, that feeling could only be experienced towards the creatures that belong to one and the same social whole” (Solovyov, *Good* 33). Here Solovyov accuses
Darwin of denying, without empirical support, that “savage peoples” have a sense of pity that transcends group membership, that their sense of pity is limited to interactions with the group. As noted earlier, however, Darwin himself maintained that only an “artificial barrier” prevented humans from extending their sympathies to humanity as whole (Darwin, *Descent* 147). Ultimately, Solovyov appears to be as concerned here about the evidence as he is the moral implications, for he declares: “To accept Darwin’s contention unconditionally would be to admit that a human savage cannot attain to the moral level sometimes reached by dogs, monkeys, and even lions” (Solovyov, *Good* 33). Again, as was the case with a sense of shame, Solovyov wants to emphasize that a sense of pity is if not unique to humans, is, at least, species-typical among them.

Unlike a sense of pity, a sense of what Solovyov calls “reverence” relates to what humans recognizes as “higher” than themselves (Solovyov, *Good* 34). Drawing on an example Darwin provided of “religious devotion,” Solovyov notes that this sense is found in animals and is seen in the way that a dog relates to its master (Solovyov, *Good* 35). In humans, a sense of reverence is more highly developed and serves the higher purpose of forming “the moral basis of religion, and of the religious order of life” (Solovyov, *Good* 34).

“The fundamental feelings of shame, pity, and reverence,” Solovyov concludes, “exhaust the sphere of man’s possible moral relations to that which is below him, that which is on a level with him, and that which is above him” (Solovyov, *Good* 35). All other feelings are therefore only variations of these three or result from interactions among them (Solovyov, *Good* 36). With this knowledge, Solovyov considers it our duty as humans to put these feelings on a rational foundation by elaborating on their value and
justification and developing them into ethical principles. *The Justification of the Good* is Solovyov’s own attempt to fulfill that duty.

In conclusion, although Solovyov began his book with the stated goal of simply demonstrating that humans in general possess innate moral tendencies, so as to legitimize the attempt he makes in *The Justification of the Good* to raise such moral intuitions to the level of ethical principles, as he did so, he also made subsidiary claims about the genesis of moral sentiments and how human moral development compared with that of the animals. Thus, Solovyov used a sense of shame and pity to support his claim that morality is not an evolved, social adaptation, whereas his claims that a sense of shame is unique to humans and a sense of reverence is more highly developed in humans served to emphasize the differences between humans and animals.

Solovyov had long sought to emphasize such differences. But whereas previously Solovyov had only praised Darwin, once Solovyov turned to the topic of morality in *The Justification of the Good*, he was forced to confront his disagreements with Darwin directly. In particular, Solovyov criticized Darwin’s conclusions about the sociobiological nature of morality so as to claim that the human senses of shame, pity, and reverence are universal in humans. Solovyov could thus claim that there is some non-utilitarian, absolute, and, perhaps, spiritual or immaterial basis to morality.

Again, while Darwin was a methodological naturalist and limited his claims about human morality to the natural world, Solovyov was not and therefore did not. Darwin’s work was valuable to him because it supported his belief in an innate human morality; but he also was wary of it because it left open the possibility that not all humans share the same moral sentiments or that they will not extend to everyone alike. Because of his
belief in inherent human worth and the power of love to bring humanity together, this possibility was unbearable.

Ultimately, the most significant development in Solovyov’s thinking on Darwin’s theory since he had published “Beauty in Nature” was his discussion of morality. Here Solovyov, with his discussion of “pity,” joined an emerging Russian scientific tradition that focused on the understudied role of “mutual aid” or “altruism” in evolution. As Todes has shown, Russian mutual aid theorists were usually also critics of the Malthusian picture of intraspecific competition that Darwin painted. Among the scientists who subscribed to a theory of mutual aid at one time or another were: Il’ia Mechnikov, Nikolai Nozhin, Karl Kessler, and Piotr Kropotkin (Todes 104-105). Given that Solovyov did not present a sense of pity as an alternative to intraspecific struggle, it is unsurprising that he did not bring up Malthus. His brief contribution sticks out because, instead of depicting a sense of pity as alternative to struggle, Solovyov cast it as one of multiple innate moral sentiments. Other than his general discussion of morality, Solovyov gave no indication that his views on Darwin’s various theories had changed since 1889. This was the last time he wrote on Darwin’s thought.

Conclusion:

At a time when the religious response to Darwinism in imperial Russia was uniformly hostile, Solovyov proved a unique exception. The first so-called “religious” criticism of Darwin’s work did not appear until 1885, over twenty years after the first Russian translation of the Origin was published. These early critics were not Church officials speaking on its behalf, but such presumed Christian writers as Danilevskii, Strakhov, and Rozanov; their anti-Darwinist writings – Danilevskii’s Darwinism, in
particular – received praise from ecclesiastical figures in the thick journals. Their criticism focused chiefly on the role that chance played in natural selection. The most prominent and competent Church critic of Darwinism, Sergei Glagolev (1865-1937), made his critical debut to what would prove to be a prolific career, in the 1893. It was an article on evolutionary ethics; Glagolev, similar to Tolstoy, maintained that true mutual aid could not follow from the Darwinian struggle for existence (Kline 313-327).

Like his critical compatriots, Solovyov also implicitly opposed the role that chance played in Darwin’s theory of natural selection, but rather than rejecting Darwinism altogether, Solovyov reconceived of natural selection as a teleological mechanism. His revision of the theory thus ensured the appearance of humans through unbroken natural law – what Solovyov called “providential selection” in *The Meaning of Love* – without resorting to direct divine intervention.

In conclusion, brief though his adolescent phase as a materialist was, Solovyov rather surprisingly turned out to be a lifelong Darwinist, albeit a rather idiosyncratic one. What began as a short-lived period of infatuation with utopian perceptions of Darwinism’s practical potential gave way to a lasting worldview bringing together Darwinism, philosophical idealism, and theism that Solovyov applied to an ever-broader range of subjects such as cosmology, aesthetics, and ethics.

As Solovyov ranged from one field to the next, his views on Darwinism, by and large, did not change. In the intervening years between 1876, when he wrote “The Second Dialogue,” and 1889, when he published “Beauty in Nature,” Solovyov still held fast to a belief in an imperfect and changing world – what Ernst Mayr called “evolution as such”--, and in the multiplication of species. He also continued to accept a theory of
non-universal common descent. The rate of evolution, however, did not come up in “Beauty in Nature,” and, for that reason, Solovyov’s later thoughts on Darwin’s theory of the gradual nature of evolution remain unknown.

The most substantial change in his thinking during this period involved the nature of natural selection. In 1876, Solovyov had written frankly that while he did not consider it the only mechanism of evolution, he did accept natural selection. But what Solovyov meant by “natural selection” was, in fact, a divine teleological instrument that worked by forming species capable of housing ever more “elevated” souls: humankind. Humans were both the goal of evolution and subject to it, emblems of evolutionary progress created through unbroken natural law. This vision of teleological and anthropocentric evolution remained with Solovyov through the years.

It was in 1889, as Solovyov turned his efforts to aesthetics, that the inconsistencies in his understanding of natural selection finally became apparent. The theory of beauty that Solovyov set out was predicated on the claim that beauty objectively exists; it is the instantiation of the metaphysical Idea of beauty and does not depend on its utility for its existence. The examples Solovyov used to explain what made an object beautiful form an undeniable pattern: as an object of beauty increases in intrinsic complexity, so does its potential for beauty. It should come as no surprise that Solovyov placed humans at the top of this hierarchy of organizational complexity. Also telling is his account of ugliness, for in explaining why an ugly object elicits revulsion in its observer, Solovyov reduced it to the object’s having an appearance that fails to conceal its utilitarian qualities. Thus, when he turned to Darwin’s theory of sexual selection for support, claiming that Darwin himself did not believe that beauty was
utilitarian or relative, but objective, he ran into difficulties. The logical structure of Darwin’s intertwined theories natural and sexual selection showed signs of strain as Solovyov tried to make them fit his idealistic mold. Solovyov decoupled natural and sexual selection by redefining utility to mean qualities related only to defense and survival, and he glossed over the importance of survival to reproduction and, therefore, the importance of reproduction – and of beauty’s role in it – to natural selection. Solovyov pointed instead to what is now called “runaway” selection, contending that because ornamentation can evolve to the point of stymying an organism’s chances of survival, such beauty itself cannot be utilitarian.

By this point, of course, Solovyov realized that the argument he had marshaled bolstered only his claim that beauty is not utilitarian. In order to support his hitherto unproven assumption that beauty is objective, Solovyov noted that humans and birds find the same objects beautiful and therefore must share a sense of beauty. Then, in detailing instances of beauty that are disadvantageous to survival, Solovyov was able to claim that beauty is not utilitarian. Furthermore, Solovyov argued that if beauty is not utilitarian, then the fact that both birds and humans find the same objects beautiful becomes incomprehensible, unless the beauty both organisms perceive exists independently of them: unless, that is, it is objective.

The issue of utility still loomed large as Solovyov turned his hand to questions of ethics and morality in *The Justification of the Good*. The greatest difference between humans and the animals, Solovyov now declared, was in the development of their moral capacities, and he was quick to point out that the “great representative of evolutionary theory” himself had said as much (Solovyov, *Good* 25). Solovyov disagreed with
Darwin, however, on the nature and origin of human morality. For while Darwin
maintained that morality was an evolved social behavior, Solovyov could not stand the
thought of a morality born of material utility. Such a morality, Solovyov feared, would
not be universal in humans, and thus would not categorically separate them from the
animals. Rather, this morality would be variable among human populations and relative
to its social utility.

Solovyov set about proving that morality was neither social nor utilitarian by
finding a moral sentiment he believed to have no social purpose: shame, and particularly
shame associated with the act of sex. He contended that because shame failed to have any
effect on the human birth rate, its purpose was, rather, to remind humans that they are
something “other and higher” than their material nature. Solovyov next turned to the
sense of “pity” or what is now called “altruism.” Solovyov admitted that pity was a
“social instinct,” but he did not accept that pity was reducible to social relations. This
was evident, he explained, in humans’ capacity for showing compassion to individuals
that are not members of their social group, including members of different species. He
concluded his analysis with a cursory discussion of the human sense of “reverence.” In
surveying our basic moral sentiments, Solovyov sought to emphasize that human
morality was not by nature utilitarian. He thereby implied a moral continuity among
disparate human populations.

In the end, he could not as a religious philosopher totally accept Darwin’s various
theories and had to make compromises in order to reconcile his religious and
philosophical commitments. Central to those commitments was an intractable
anthropocentrism that lay at the heart of Solovyov’s idealist aversion to the utilitarian
assumptions underlying the Darwinian principles of natural and sexual selection. This aversion ultimately took the form of a longstanding anxiety about sexuality, as seen in “Beauty in Nature” and “The Meaning of Love”; Solovyov returned to a similar line of thinking in “The Primary Data of Morality,” claiming that the sense of sexual shame has no utilitarian value, but reminded humans of their “other and higher” nature. Solovyov may have been able to accept that humankind was descended from the lower animals, but his anthropocentrism would not let him believe that humans were only animals.
CHAPTER FIVE

CONCLUSION

Strakhov, Tolstoy, and Solovyov all knew one other. Although they came to be part of a shared social circle, they came from different backgrounds and developed distinct worldviews, characterized by varying degrees of religiosity. They also all formed different opinions about Darwinism, and those views varied throughout their lives. Nevertheless, they often shared certain underlying interests and concerns about Darwin’s theories, even if they justified them differently. They all cared about the theory primarily as it applied to humans, in particular, to the meaning of human life, morality, and ethics.

Tolstoy and Strakhov worried about the implications of the struggle for existence for the meaning of life. For Tolstoy, the struggle justified selfishness and undermined the belief that humans have an innate capacity for love. Strakhov, on the other hand, maintained that the struggle, together with the random variations that determine survival, threw into question the notion that human life has intrinsic worth. Thus the non-teleological implications of the struggle for existence drove Strakhov’s anti-Darwinism, whereas they posed no difficulties to Solovyov. He simply built a teleological element into his understanding of natural selection, thus making the emergence of humans seem inevitable and satisfying his own anthropocentric worldview.

Despite the fact that Solovyov largely accepted Darwin’s ideas while Tolstoy ultimately rejected them, both Russian thinkers did share certain moral reservations about Darwinism. In particular, as they began to consider the idea of morality as an adaptation,
in the 1890’s, they were both struck by how its adaptive roots changed the underlying basis of morality. For a man who wanted the world to be redeemed by selfless giving, the thought that morality, when understood as an adaptation, turns acts of kindness and cooperation into nothing more than self-interest in disguise, was abhorrent to Tolstoy. Solovyov shared this concern, for while the Darwinian idea of an innate morality lent credence to Solovyov’s ethical project, the fact that Darwin understood morality as an adaptation had troubling implications. Indeed, as an adaptation, morality was not absolute and did not entail that all humans shared the same morality. Virtuous behavior only came to be considered such because of its survival value to local environmental conditions, not because it was inherently good.

Finally, Solovyov, Strakhov, and Tolstoy all opposed evolutionary ethics or what is now often called “social Darwinism.” Although Solovyov never said so, the fact that he opposed the idea of morality as an adaptation, but advanced the idea of an innate morality that he would ultimately use as the basis for an ethical theory, suggests he would have opposed using the idea of morality as an adaptation to build that ethical theory. Tolstoy and Strakhov, on the other hand, made their opposition explicit. Indeed, in his 1862 article “Bad Signs” Strakhov maintained that while humans do have innate differences, these differences have no bearing on human moral worth, whereas Tolstoy briefly criticized using Darwinism to excuse social inequalities as unavoidable.

Central to these concerns was the notion of heredity. Indeed, the inheritance of variations beneficial in the struggle to survive and reproduce was an explicit assumption of Darwin’s theory of natural selection. But even Darwin’s most adamant supporters acknowledged that Darwin’s lack of a tenable theory of heredity was a serious defect of
Darwin’s general theory and that the discovery of the mechanism of inheritance was paramount to the theory’s lasting success. Despite the Darwinian and German biologist August Weismann’s resounding success in 1888 with showing that mice whose parents’ tail was cut off did not inherit a shortened tail, the debate over the inheritance of acquired characteristics continued largely unabated outside of scientific circles, into the 20th century. In Russia, the fact that the debate was not definitively settled for society at large left room for the theory of the inheritance of acquired characteristics that was at the center of the emerging Marxist-Leninist program at the end of the 19th century. The program’s goal was to improve humankind, to produce new humans – later called “Homo Sovieticus” – through revolution and the subsequent restructuring of social conditions.

With the rediscovery of Mendel’s work “Experiments in Plant Hybridization” (1866) at the turn of the nineteenth century and the subsequent development of the field of genetics, many of the concerns that dominated Strakhov’s, Tolstoy’s and Solovyov’s thought were given new life in Russia. For example, the writer and physician Mikhail Bulgakov (1891-1940) wrote his novella Heart of a Dog (Sobach’e serdtse) in 1925 (published only under different political circumstances in 1968) as the debate about eugenics reached a fever pitch. It was the tale of an eminent Moscow biologist and fervent eugenicist, professor Philip Philippovich Preobrazhensky (literally: “transformation” or “transfiguration”), who one day takes a stray dog “Sharik” home to use in an experimental operation. He removes Sharik’s pituitary gland and testes, replacing them with those of a deceased man named Klim Chugunkin. Over time, Sharik’s form and behavior become increasingly human, ending in what Preobrazhensky’s student and assistant Dr. Bormenthal calls “complete humanization”
(Bulgakov 60). In fact, Sharikov – the name the dog-turned-human is given – takes on all
the disagreeable characteristics of his organ donor Chugunkin.

Exasperated, Preobrazhensky, at one point, asks Bormenthal a rhetorical question
about who Sharikov is and explains: “‘Klim Chugunkin…— that’s what it is: two arrests,
alcoholism, “divide everything,” my hat and two chervontsy gone…— a boor and a
swine’” (Bulgakov 104). The results of Preobrazhensky’s experiment thus demonstrate
that both behavior and form have a material and heritable basis. In other words, humans
are not tabulae rasae; their behavior is not determined solely by environmental factors as
the Marxist Soviets maintained. The picture Bulgakov has drawn with Sharik and
Chugunkin is largely one of biological, not environmental, determinism.

To be sure, through his science fictional transformation Sharik made an enormous
Lamarckian leap up the evolutionary ladder from dog to human, but to Preobrazhensky’s
chagrin, his experiment showed him only the brain area that determines “the aspect of the
given human individual…and not the human aspect generally” (Bulgakov 104). He
considered the experiment a failure, for as a eugenicist, he sought to effect the
“improvement of the human species” (Bulgakov 104), not to modify one person at a time.
For that reason, he rejects Bormenthal’s proposal to perform another operation and
replace Sharikov’s transplanted organs with those of a genius, complaining: “‘Tell me,
please, why is it necessary to manufacture Spinozas artificially when any peasant woman
can produce them at any time? Didn’t Mme. Lomonosov bear her famous offspring out in
Kholmogory?’” (Bulgakov 103). He failed to discover the fundamental cause and material
basis of human behavior needed to manipulate and improve it. Ultimately, when
Preobrazhensky can no longer stand Sharikov’s antics and tries to make him move out of
his apartment, Sharikov threatens Preobrazhensky’s life. This leads Preobrazhensky and Bormenthal to reverse the operation and turn Sharikov back into a dog.

Like Chekhov’s “The Duel,” Heart of a Dog is by no means an indictment of eugenics as a whole. Rather, it is a critique of the current limits of the science, something that can, at least in principle, be overcome. In fact, Bulgakov’s focus on the heritability of behavior conforms to the premises of eugenics, though the core of his criticism lies elsewhere, with the Marxist emphasis on the environment. Though Chekhov and Bulgakov clearly had different beliefs about human nature, their particular responses reflect the extreme conclusions that evolutionary ethicists and eugenicists drew from the science of the day. Hence, as the historical pendulum swung from the overriding societal preoccupation with the heritability of human behavior that Chekhov had critiqued in “The Duel” to the Soviets’ uncompromising belief that such behavior is determined exclusively by the environment, in spite of the emphasis in genetics on heritability, Bulgakov sides with biological determinism in Heart of a Dog.

In many ways, Bulgakov’s novella was a return to the evolutionary ethics that Royer appeared to champion in the introduction to her translation of the French edition of the Origin. Indeed, both the evolutionary ethicists and eugenicists relied on the assumption that traits are, in general, highly or completely heritable and therefore subject to minimal, if any, environmental influence. Whereas the Soviets’ Marxist attempt to improve the human lot by changing our social environment was, to their minds, doomed to failure, the evolutionary ethicists and eugenicists were eager to take on the role of “breeder” and themselves direct the course of human evolution. In so doing they sought use Darwin’s theory so as to improve the genetic quality of the human species by culling
the harmful and undesirable traits from the population, and consequently reduce suffering and realize their utopian vision of humanity.
WORKS CITED

Antonov, E. A. “Antropotsentricheskii kharakter naturfilosofii N. N. Strakhova.” 


*Biografiia, pis’ma, i zametki iz zapisnoi knizhki F. M. Dostoevskogo*. Edited by O. F. Miller and Nikolai Strakhov. Saint Petersburg, A. S. Suvorin, 1883. Print.


Darwin, Charl’s. O proiskhozhdenii vidov v tsarstvakh zhivotnom i rastitel’nom putiom estestvennogo podbora rodichei ili o sokhranenii usovershenstvovannykh porod v


Il’in, Nikolai. “Pervyi opyt kritiki darvinizma v russkoii filosofii i sovremennaiia teoriia
nauchnogo znania.” *Filosofskiaia kul’tura*, No. 2 (July-December, 2005).
 http://www.hrono.info/proekty/metafizik/fk209.html

Kholodkovskii, Nikolai. *Uchebnik zoologii sravnitel'noi anatomii dlia vyshikh

Kline, George L. “Darwinism and the Russian Orthodox Church.” *Continuity and
Change in Russian and Soviet Thought*. New York: Russell & Russell, 1955. 307-
328. Print.

Knipovich, Nikolai. *Kurs obsheei zoologii dlia vyshikh uchebnykh zavedenii i

Knowles, A. V. “Some Aspects of L. N. Tolstoy’s Visit to London in 1861: An
Examination of the Evidence.” *The Slavonic and East European Review*, Vol. 56,

russkom iazyke, postupivshikh v 1860-2008 gg. v rossiiskie biblioteke.” *Istoriko-

Kornblatt, Judith Deutsch. “Who Is Solovyov and What is Sophia?” *Divine Sophia: The

Print.

Korzhinskii, Sergei. “Geterogenezis i evoliutsiia.” *Izvestiia imperatorskoi akademii nauk,


Lopatin, L. M. “Filosofskoe mirovozzrenie V. S. Solov’eva” *Filosofskie kharakteristiki i rechi*. Moscow: Tipografia imperatorskogo moskovskogo universiteta, 1911. 120-156. Print.


Nartov, Andrei. Rasskazi o Petre Velikom.

http://elcocheingles.com/Memories/Texts/Nartov/Nrt_1.htm


---. *Osnovaniia sotsiologii.* Saint Petersburg: Bilibin, 1876. Print.


--- “Kratkii ocherk teorii Darvina.” *Charl’z Darvin i ego uchenie.* Moscow: AN SSSR, 1941. 23-188. Print.


