Russian Eugenics and the Russian Eugenics Journal have always evoked interest; however, the question was not resolved: If the articles in this journal are so good, then why did eugenics lead to racism?

Indeed, 100 years ago the mainstream American eugenics meant racism, xenophobia, and compulsory sterilization. It appears that for exactly this reason the appearance of Anglo-American medical genetics was delayed for about 20 years.

However, the Russian eugenics movement was designed and has developed as a precursor to research in human evolution, human behavior, and human genetics. “Why then don’t we call eugenics ‘medical genetics?’” asked a colleague. But eugenics is not medical genetics; it is not even entirely a science. A science does not appear in ready form like Athena from Zeus’s head; there needs to be a preliminary orientation period. Russian eugenics was a discussion of certain themes and approaches, a kind of anticipation. N.K. Koltsov’s eugenics addressed a comprehensive study of man. For Yu.A. Filipchenko, eugenics was demographic statistics.

The Russian eugenics movement was concerned with a wide variety of fields, including evolutionary genetics and evolutionary theory, population genetics and population ecology, the study of human constitution and typology, psychology and behavioral science, pathography, pedology, and many others. All these fields were unlucky to be disfavored by Stalin, and as a result they ceased, and books and journals on these subjects were banned.

In 2005, over winter vacation, an old friend asked me what I would be doing over the near year. I mentioned Dawn . . . , and he replied (only partially joking): “Twenty years ago you would have been shot for that right away.”

But this book was conceived 30–35 years ago: Eugenics is related to population genetics, my first field of study, and 20 years ago I was already giving a series of lectures on the history of eugenics.

The Russian eugenics movement appeared at the boundary of the 19th and 20th centuries, when people were expecting “the end of days.” Now this is history. But we are now again at the boundary of centuries, and even of millennia. Many feel that a new apocalypse is coming and talk about the inevitability of a new eugenics. What will it be? Nobody knows! But we must be ready.

This book aims to give a general survey of the Russian eugenics movement, to present the fundamental texts, and to provide orientation for future scholars.


My work was supported for a number of years by the Russian Scientific Foundation for Humanities, grants No. 97-03-04373a—“N.K. Koltsov (1872–1940): A Political Biography”; No. 00-03-00104a—“Nikolai Vladimirovich Timofeev-Ressovsky, 1900–1981: A Scientific Biography”; No. 01-03-16057d—“Book: V.V. Babkov & Ye.S. Sakanyan, Nikolai Vladimirovich Timofeev-Ressovsky, 1900–1981”; No. 01-03-00241a—“Social History of Human Genetics in Russia”; and the Russian Foundation for Fundamental Research, grant No. 00-06-80109—“History of Human Genetics in Russia, 1920s–1940s.”

The work was completed with the support from the Russian Foundation for Fundamental Research, grant No. 04-06-80174, “Natural Variation and Its Maintenance in Populations.”

The monograph was published with the financial support of the Russian Research Foundation for Humanities, grant No. 05-03-16034d.
THE DEVELOPMENT OF MEDICAL GENETICS, and more generally human genetics, in the West suffered greatly from its too close association with eugenics. More progressive doctors, who would have been needed to advance the field, were put off by the racism and xenophobia of eugenics and were given almost no training in the complexities of the then new science of genetics. However, in Russia, the initial euphoria of the Bolshevik leaders for a new socialist society to be populated by a new kind of socialist Man, combined with a commitment to a truly universal health care system, gave a huge boost to the emergence of both the eugenic and medical aspects of human genetics. The obstacles that proved so formidable to the successful launch of the field in the West—the lack of available data on the genealogy of diseases in families, the difficulty in getting a statistically significant number of identical twins to study, and the skepticism of the medical establishment—were all swept aside in the Soviet Union. In the 1920s, under the stewardship of the charismatic and gifted biologist Nikolai Koltsov, the groundwork was laid for a uniquely Russian approach to medical genetics, and by the early 1930s the physician–geneticist Solomon Levit was able to build the well-funded, extensively and expertly staffed Medical-Biological Institute (MBI) (later renamed the Medical Genetics Institute) into the world’s leading center for the study of the genetic basis of many diseases and human genetics in general. The immense success of the movement, which is little known even to Russians, is brought to life in V.V. Babkov’s *The Dawn of Human Genetics*, as is its dramatic and violent end, which resulted in the “liquidation” of many of the country’s finest biologists, as well as a major setback to the development of world science. Like many other promising ideas and projects that were born in the Soviet Union, this one was abruptly truncated and then virtually eradicated.

This book, which was V.V. Babkov’s last before his untimely death in Moscow in 2006, was his most ambitious work. The text consists of many of the original texts—articles, letters, and other documents—from the 1920s and ’30s, as well as a series of short interpretative essays by Babkov himself, which serve as explications and interpretations of the primary source material. The final chapter of the book features some of the few remaining geneticists in the post-Stalin era. Of special interest is a remarkable and, as far as I know, never-before-translated essay on the origin of altruism by the great scientist and humanist V.P. Efroimson, which was written at the same time that the sociobiology movement was coming into its own in America and England. In contrast with the
sociobiologists, with their emphasis on the warlike, aggressive, and individualistic nature of mankind, Efroimson argues that man is born with an innate sense of justice, humanness, and kindness, as well as a passion for knowledge.

Babkov is an unapologetic champion of the style of historical writing that views the scientist as a Romantic hero (or villain) and attributes great significance to the actions of a select group of highly energetic, charismatic leaders. In that sense, he was a Russian of the old school—passionate, intuitive, intensely opinionated, interested in the big sweep of ideas and less in the details, and occasionally giving himself over to mysticism. The son of a decorated air force general who shot down 23 Nazi planes during World War II, Babkov grew up in a privileged milieu. Unlike many of his colleagues, who still hardly dare to deviate from a catalog of places, titles, and dates, Babkov was unafraid to leap to conclusions about people and events. It was for this reason that I was immediately attracted to his writing, which presents a quite novel picture of the birth and destruction of human genetics in the Soviet Union, as well as a great deal of the primary source material that will allow the reader to come to his or her own conclusions.

It is perhaps not surprising that this historian of the Romantic school devoted a large part of his career to the most romantic of Russian biologists, N.K. Koltsov, who is, along with Solomon Levit, at the center of this book. Koltsov’s articles and Babkov’s writing about him take up no less than a quarter of the book, and most of the rest concerns Koltsov’s disciples and their writings. Koltsov was a hugely productive scientist and organizer of scientific projects. In the tumultuous summer of 1917, which was characterized by wild experimentation in art and science, Koltsov founded the Institute of Experimental Biology (IEB). The first center for new biological research in the country, the IEB encompassed a huge diversity of disciplines, including genetics, cytology, embryology, hydrobiology, physicochemical biology, endocrinology, and neurobiology.

Koltsov’s interests spanned the gamut of modern biology, ranging from the structure of molecules—he predicted several key features of the hereditary molecule, which would later be borne out by the structure of DNA—to the anatomy of the cell (advancing the idea of the existence of a cytoskeleton), to evolution and population genetics. He had command of the latest findings in physiology, endocrinology, and neurobiology, as well as the recent developments in animal psychology. In addition, Koltsov had a great passion for human biology and eugenics, and it is this aspect of his career that Babkov’s book focuses on. In 1921, Koltsov expanded his efforts in this direction by forming the Russian Eugenics Society (REO), along with the Russian Eugenics Journal, which published seven multi-issue volumes over the next nine years. Koltsov was himself a prolific contributor to this journal, and Babkov has included four of his weighty papers from the period 1922–1926 in Chapter 2, as well as the tables of contents of all seven volumes of the journal.

Although the mood of the country and official policy took a wrenching turn at the end of the decade, there was a palpable sense of promise and possibility, of a “New World” and a “New Man,” in the early 1920s. The quick development of Koltsov’s Institute and the Eugenics Society were greatly facilitated by his friendship with N.A. Semashko, the Commissar of Health (head of the NKZ), who had briefly taken over the Institute when Koltsov was arrested for his role in the Tactical Center Affair, an anti-Bolshevik movement undertaken by disillusioned members of the “intelligentsia.” Although Lenin spared Koltsov, he was no fan of the liberal intelligentsia, as he made clear in his reply to
the already famous Maxim Gorky, who had written an appeal on Koltsov’s behalf. “The intellectual powers of workers and peasants are growing and get stronger in the fight to overcome the bourgeoisie and their supporters, the intelligentsia, the lackeys of capital, who imagine themselves the brain of the nation,” he wrote, adding with terse acerbity: “Actually this is not a brain, but shit.”1 It was only the timely intervention of Gorky and Semashko that won Koltsov’s reprieve the night before he was to face a firing squad. Ever the scientist, Koltsov had written a paper on the physiological changes of prisoners sentenced to death entitled, “About Weight Change of a Human in a State of Unstable Equilibrium.”

Like his hero, Francis Galton (Charles Darwin’s cousin and the founder of modern eugenics), Koltsov saw no reason why humans could not be bred for particular traits in exactly the same way that animals and plants were. In the fall of 1921, he gave an address to the newly formed Russian Eugenics Society, which appeared later that year as the lead article in Volume 1, Issue 1, of the new *Russian Eugenics Journal* (see Chapter 2, p. 87), an article that would haunt him in future years. In it, he described a vivid thought experiment illustrating the power of breeding. Borrowing from H.G. Wells, Koltsov imagined the invasion of a group of super-intelligent Martians who treated humans exactly as they treated their farm animals and household pets. People would be suitably “domesticated” just as dogs had been made from wolves. Independent-minded, rebellious types would quickly be eliminated, while large, docile breeders would be chosen to create a strong, compliant workforce. Other people with fine motor control would be selected to create a class of craftsmen, and special races of the most beautiful—to the Martian taste—would be created. “In as little time as a century,” he wrote, there would be “endless individual races of domesticated people as sharply distinct from one another as a pug or a lapdog is from a Great Dane or St. Bernard” (p. 71). Had the laws of Mendel been known to Russian landowners or to American slave owners in the previous century, he continued, they could have accomplished the same ends by means of breeding their serfs and slaves. However, Koltsov believed that the right to choose one’s spouse was a “precious freedom”—one that mankind would never willingly relinquish.

It was just this precious freedom that Koltsov’s disciple A.S. Serebrovsky and the expatriate American geneticist H.J. Muller, who was one of the principal architects of the modern chromosome theory, would propose to revoke a decade later, and their suggestions would set off a cascade of horrible events. But this comes later in the history and in Babkov’s book as well. For Koltsov’s 1921 speech was given in the first months of Lenin’s New Economic Policy, following three years of “real communism” during which the government had requisitioned all produce, resulting in the virtual disappearance of food in the cities. Moscovites were eating horses and cats. In the wake of this wholesale confiscation, Lenin’s new policy was meant to encourage individual enterprise, and Koltsov’s genetic theory was perfectly consonant with the new economic theory. According to Koltsov, centuries of serfdom had created a dull, passive peasant population, little different from the hereditary slaves that might have been bred by his Martians. Koltsov believed that humanity itself could be divided into two types: *Homo sapiens explorans*, a subspecies characterized by its inborn qualities of enterprise, independence, and

---

1 Lenin to Gorky, September 15, 1919.
bravery; and the entirely passive, authority-craving *Homo sapiens inertus*, among whom the long-suffering, highly conservative peasantry was a prime example.

The idea that the best genes resided in the aristocracy was of course unacceptable after the Revolution, as one would have had to praise the fiercely anti-Bolshevik White Army, and even as Koltsov and his fellow members of the Russian Eugenics Society were writing, the aristocrats and bourgeois classes were being eliminated. It was safe, however, to reach back to the Decembrist uprising of 1825, which was led by Russian army officers against Tsar Nicholas I, to show that these officers were richly endowed with genes for activity, bravery, and intelligence, and to trace their origin and mode of inheritance. Likewise, it was still acceptable to focus on the old nobility, and Babkov includes a representative sample of genealogical studies of Russia’s most celebrated aristocratic families, including the Tolstoys, Pushkins, and Trubetskoyks, attempting to find patterns in the inheritance of their special talents (see Chapter 5). An essay on Dostoevsky by M.V. Volotsky, who worked for a time in Koltsov’s Institute, is an example of an early, and maybe the first, study of epilepsy informed by genetics. Koltsov himself wrote a genealogical study of the Darwin and Galton family. In a separate chapter, Babkov includes a contemporary study of the “Criminality of Jews,” which found criminality of all types to be less prevalent among Jews than among Christians (see Chapter 4), and the table of contents of an entire journal devoted to the study of the constitutional makeup and diseases of Jews (pp. 301–305).

Unlike the aristocracy, the *vydvizhentsy* were an entirely uncontroversial subject for study. By the 1920s the word had come to describe those who opportunistically pushed their way into positions of power in the Communist Party, but Koltsov meant it in an older sense. For him, the *vydvizhentsy* referred to those of humble origins who had sufficient inborn ambition, drive, and intelligence to make “great men” of themselves—people so overflowing with energy and talent that no external obstacle could prevent them from achieving their creative goals and advancing to the highest levels of society. In fact, Koltsov might just as well have used his own story to illustrate the point. As he described in his 1924 article in the *Russian Eugenics Journal* (Chapter 2, p. 96), the new class of scientist and merchant must be uncommonly endowed with genes for creative capacity and the “will for power,” which enable them to organize others, as well as genes for “propagandizing.” These genes, he added, were most likely dominant, and without the ability to promote one’s ideas a scientist’s “labor was wasted” (p. 99). Ruling over the immensely influential IEB and REO, each of which turned out reams of impressive work, Koltsov was certainly an exemplar of the active type, but Koltsov’s longtime friend Maxim Gorky was an even more perfect example of the *vydvizhentsy*, and Gorky’s family was the main subject of Koltsov’s 1926 study, “Genealogies of Our *Vydvizhentsy*” (Chapter 2, p. 152). Because Gorky’s relatives were all indisputably working-class—a family of drunks, storytellers, savants, and miscreants—it was politically acceptable to talk about the origin of Gorky’s inborn traits, the unique “availability of neuron-rich cortex strata” that Koltsov believed accounted for the creativity of the writer or poet (p. 178).

After Lenin’s death in 1924, Russian eugenics continued to grow and prosper for the next five years. Complementing the work of Koltsov, the geneticist—statistician Yu.A. Filipchenko, who had formed his own eugenics society with its own journal in Petrograd (soon to be renamed Leningrad) in the early ’20s, embarked on his most ambitious eugenical work in 1925. Taking inspiration from Francis Galton’s book-length study *English Men of Science*, Filipchenko did a careful statistical study of the members of the
Russian Academy of Sciences. Meticulously, he documented the achievements of close relatives of >80 members of the Academy. Like Galton before him, he erroneously concluded that the fact that close relatives of brilliant men were also brilliant proved that scholars were born and not made, glossing over the obvious objection that it might have been the special benefits that accrue to the family members of celebrated scholars rather than their great brains that accounted for their exceptional level of accomplishment. Nonetheless, Filipchenko’s studies were taken seriously, and he was put in charge of dividing all researchers into five groups, ranking them according to the level of their inborn talent for the Central Commission on Improvement of Scholars’ Lives (TsEKUBU). The greater your inborn talent, the greater the benefits you received.

Over the subsequent years Koltsov and his collaborators at the REO continued to argue the case for genetic determination of human psychology, diseases, and other characteristics. Koltsov was deeply impressed by the purely mechanistic approach to neurophysiology being developed by I.P. Pavlov, who banned all references to thoughts, desires, memories, and emotions in his lab in favor of his famous conditional and unconditional reflex arcs. In his “Genetic Analysis of the Psychological Features of Man” (Chapter 2, p. 87), Koltsov applied his expertise in microscopic anatomy to make the case that although “conditional reflexes” were obviously not inherited, the ability to lay down such reflexes and the rate of their formation were (p. 112). At the same time, Koltsov was interested in subjective psychology, speculating that the ancient classification of temperament into four types—choleric, sanguine, phlegmatic, and melancholic—could be correlated with the activity of the thyroid gland or the gonads. Although conceding that the expression of genotype depended on random environmental conditions, he believed that it was nonetheless possible to define “constitutional types.” Temperament he considered to be a purely zoological feature, and expressions such as “timid as a rabbit” or “brave as a lion” could be taken literally. Thus, it was possible in principle to dissect personality into units that were inherited as genes.

Perhaps most importantly from a contemporary perspective, Koltsov also initiated a wide-ranging study of what he called “racial pathology,” which focused on the many isolated populations of the Caucasus that had been virtually untouched for centuries, with the goal of looking for higher incidences of specific diseases that could then be analyzed genetically. The concepts of what would come to be called population genetics had recently been developed by the brilliant geneticist Sergei Chetverikov, who had been profoundly affected by his exposure to Drosophila genetics, which had been introduced to Koltsov’s group by a highly energetic and idealistic Muller in a whirlwind tour of the Soviet Union in the summer of 1922.

This interest in studying isolated populations in order to find disease genes was picked up by the young physician—geneticist Solomon Levit. Levit was born in a shtetl in Lithuania and was the first member of his family to receive a formal education. Although many scientists—even the most left-leaning among them—avoided joining the Communist party, it provided a quick means to advance in society for a poor Jew from the hinterlands. As a teenager, Levit had joined the Bund, the most leftist of the Jewish parties in the Jewish Pale, and later he joined the Bolshevik faction of the RSDRP. Levit entered Moscow University medical school in 1916. Shortly after the Bolsheviks seized power in October 1917, he served briefly as a medic in the Red Army until he was struck with typhus and allowed to return to his medical studies. After the Civil War ended in 1921, Levit returned
to his native village in Lithuania to be married. Although he would have been well-advised to emigrate to the West as had many Jews from similar backgrounds, Levit chose instead to return to Soviet Russia with his bride. For him, the Communist Party was a new religion, and he had an almost messianic fervor about it. In the prime of his life he would be richly rewarded for his loyalty to the Bolshevik cause, and subsequently, as was the norm under Stalin, cruelly punished for it.

A devoted Party member, Levit would have had good reason to believe that he was acting in accord with Stalin’s famous injunction in December 1929 to elevate practice over theory (p. 541). For he was vigorously advocating a new medical genetics, a field that would apply the new insights of the chromosome theory and Mendelism to the practice of medicine. As a founding member of the Society for Study of Racial Pathology and Geographic Distribution of Diseases and the head of the Laboratory of Human Heredity and Constitution at the Medical-Biological Institute in Moscow, Levit had initiated field studies of local populations; twin studies, nonidentical and identical; and the collection of genealogies. In addition, he began to compile data on the human chromosomes with the eventual goal of creating a map of the complete set of chromosomes, as well as genetic data on the inheritance of various diseases.

In 1929, the first volume of the Laboratory’s works was published, which included Levit’s visionary article, “Genetics and Pathology (in Relation to the Current Crisis in Medicine)” (Chapter 8, p. 552). In this article, Levit pointed out that genetics would play a key role in understanding purely internal diseases—what he termed “constitutional diseases”—including many forms of cancer, but also in illuminating a patient’s predisposition to diseases triggered by specific pathogens (like tuberculosis) and in understanding susceptibility to paratypic diseases (diseases caused by infections, traumas, etc.). With the zeal of a recent convert, Levit trumpeted the role of heredity, proudly proclaiming: “We put an end to simplified ideas about the almighty role of the environment, for which an organism is a kind of an amorphous mass that is able to change in any direction.” Others might have been more cautious about going against Soviet orthodoxy, which sanctified the role of the environment in disease, learning, and heredity itself, but for Levit, who was firmly convinced that in the end science would trump ideology, such unambiguous and direct statements were second nature. Until the very end he could not believe that he would be punished for the clear-sighted and groundbreaking new science that he was creating.

In particular, Levit had already begun gathering all available information on the mode of inheritance—whether recessive or dominant, sex-linked or autosomal—for diseases that ran in families. Such data, he pointed out, could immediately be used clinically to distinguish between two different diseases that presented with the same symptoms. Based on his own findings, it was already clear that there were at least two different forms of hemophilia—the classical sex-linked version and another that was autosomal dominant. Furthermore, Levit predicted that a time would come when it would be possible to determine the linkage of a disease gene to other traits, and to map its exact location, as well as to find other contributing genes—so-called modifiers—that influenced the primary gene’s expression. When this happened, he said, clinical differentiation would be put on a solid scientific foundation. This possibility had been pointed out by H.J. Muller in a remarkable paper that occupied an entire issue of the Journal of Genetics in 1920. In that paper, which was based on work he had done as a graduate student at Columbia, Muller had shown that it was possible to map complex traits by locating both the master
gene for a particular mutant phenotype (truncation wings) and the associated modifier genes to specific chromosomes in *Drosophila*. Eighty years later, with the advent of genome-wide association studies, Levit’s dream of finding the genes that contribute to complex human diseases would begin to be realized.

Around the time that Levit published his foundational article, there was an abrupt change of mood in the Soviet Union. In several chapters Babkov spells out the ways in which the advent of the Five-Year Plans in 1929 and the push for industrialization marked the beginning of a new relationship between the state and science. The liberal-minded commissars of health and education, Nikolai Semashko and Anatoly Lunacharsky, were removed, and the leading geneticist at the IEB, Sergei Chetverikov, was arrested and exiled. Koltsov was accused of leading “a reactionary-party biology,” and his past writing was subjected to analysis by a brigade of ideologues, including the notorious Lysenko crony I.I. Prezent, who found that Koltsov was conspiring to import the conclusions of Fascist eugenics into Russia. Even Koltsov’s finest and least controversial work on the distribution of blood types was criticized as Fascist.

Among the younger generation, the Koltsov protégé A.S. Serebrovsky was singled out for attack for his zealous advocacy of eugenics. In his 1929 article, “Anthropogenetics and Eugenics in a Socialist Society” (Chapter 6, pp. 505–516), which appeared concurrently with Levit’s “Genetics and Pathology,” Serebrovsky laid out his vision of a new socialist eugenics. He called for the destruction of the traditional family, state child care for all children, and artificial insemination of women by sperm from state-approved donors. The notion that a man could love offspring only if they were products of his own sperm was, in Serebrovsky’s view, an entirely artificial construct that followed from the capitalist conception that a wife was a man’s property (pp. 513–516). Although equally radical ideas had been embraced in the 1920s, such independent-minded initiatives were no longer welcome. Serebrovsky was severely criticized for overreaching and forced to recant, and in his future writing he put aside his ideas for improving the national “genofond” by means of artificial insemination and stuck to less controversial topics.

In February 1932, Levit, having returned from a yearlong stay in Muller’s Texas laboratory on a Rockefeller stipend, found that he had been removed from his position as head of the Medical-Biological Institute and that all of his genetic projects had been suspended. In his absence, the attacks on Koltsov had escalated and a decision had been made to disband the venerable IEB. Once again, it was Maxim Gorky who came to the rescue, hand delivering a letter from Koltsov to Stalin, which was enough to stay the assault. Nevertheless, Koltsov felt it was necessary to divest his institute of its association with human genetics altogether, and he handed off the researchers involved with human genetics as well as their projects to Levit. Six months later, Levit was reinstated as head of the MBI and persuaded the Central Committee to allow him to resume genetic research. His friends warned him that this was suicide, but the indomitable Levit pressed forward.

Over the course of the next four years the MBI, which would be renamed the Maxim Gorky Institute of Medical Genetics (MGI), resumed work on the analysis of the genetics of pathology that Levit had laid out in his 1929 paper. In addition, the twin studies that had been initiated at Koltsov’s IEB were greatly expanded, and by the time it was closed in 1937, the MGI was monitoring >1700 twin pairs and overseeing the development of seven pairs of twins in the Institute’s twin kindergarten. In the department of cytology, researchers were studying the chromosomal changes associated with leukemia, and
making great strides in characterizing chromosomal irregularities more generally, an effort that would only come to fruition 20 years later in the West.

In the final section of his book, Babkov presents the narrative of events that led to the demise of genetics in the Soviet Union. Among the texts that are reprinted is Muller’s letter of July 1936 to Stalin, in which Muller, who was then living in Moscow, argued, as Serebrovsky had before him, for a eugenics program based on the use of artificial insemination by selected donors. It was this letter, Babkov argues, that tipped the balance and persuaded Stalin to liquidate the Soviet genetics program. Although it seems unlikely that Muller could have exerted so large an influence on a matter of such vital interest to the state, it is clear that he and the geneticists had failed to understand how thin was the thread on which the future of genetics hung. Although Muller would escape, Levit, Koltsov, and many of their colleagues were to perish in the upheaval that followed.

For several years Koltsov staved off the final dissolution of his institute. His eugenic writings from the 1920s were resurrected and turned against him, but again and again he refused to renounce his former writings or to recant, insisting that his words were being taken out of context and that the specific criticisms that were being leveled against him were unjustified. When pressed, he continued to insist on the importance of eugenically sound marriages. In the end, Koltsov died of a heart attack under suspicious circumstances in a hotel in Leningrad in December 1940. Ironically, Koltsov’s fantasy of the 1920s had been enacted. It was Stalin himself who played the role of the nearly omnipotent Martians, systematically destroying the most independent, active, and rebellious members of society. Regardless of whether these qualities were inborn or the result of education and acculturation, the destruction of these individuals had far-reaching consequences. The fact that the children of these gifted individuals were deprived of nurturing parents, or murdered along with them, or never even conceived had a profound effect on the subsequent generation, and this effect is still felt today, as is the effect of the loss of one of the crowning achievements of Russian science—a brilliantly conceived and highly productive program in medical genetics.
Man and everything connected to him is the favorite, the main, and the almost sole object of our observation and study. In our tradition, Judeo-Christian-Muslim, there are two main myths—a myth about the creation of the world and a myth about the creation of man, and the second is a special aspect of the first. The creation myth in a secularized society and a modern intellectual environment assumed the form of evolutionary and cosmological hypotheses and theories. Both, because of their origin, possessed rich and very explosive associations; the consequences are obvious. For instance, in the early 1920s, Albert Einstein, with a true religious zeal, attempted to fight the ideas of a young Russian physicist, A.A. Friedman, which contradicted Einstein’s postulate of a stationary universe. If the origin of the universe and evolution of the world so deeply touch both specialists and the broad public, what powerful energy must be carried by a hypothesis about man himself, about the causes of his diseases, abilities, and talents?

While anthropology was slowly accumulating its facts, it was not subjected to any demonization (however, the later natural-philosophic discussions of ultramaterialists and radical Darwinists caused a number of problems, including the Monkey Trials). The public now is not keenly interested in modern human molecular genetics. Even the widely publicized Human Genome Project did not capture the public interest as expected. In part, this is because biotechnologists have no idea of the meaning behind the nice pictures that they obtain. However, the lack of charisma of this project is largely due to the fact that molecules (as well as elementary particles) are objects that are as alien to man as are the fish in exotic seas, volcanoes on faraway islands, and comets and asteroids. The public is more interested in the cloning of mammals and humans, which is entirely limited to sensational reports in the mass media, but this subject is compromised by falsifications.

Modern evolutionary studies use genetic methods and approaches, and this is also completely true in the study of human evolution. But human genetics appeared rather late, much later than the direction of research that was shaped by the interest of scientists and laypersons alike in obtaining healthy and outstanding offspring over a number of generations. The teaching of Francis Galton on human evolution and heredity was the most developed and influential; he combined Charles Darwin’s theory of natural selection, which he applied to man, with his own mathematical—statistical approach, and this he named “eugenics.”

Galton’s ideas deeply influenced British science. They provided legitimacy both to the creators of the Darwinist and mathematical—biological school (Karl Pearson) as
well as to the creators of the rival Mendelian school (William Bateson). Later Ronald Fisher, a biomathematician and ardent supporter of Galton’s eugenics, removed the controversy, united both directions, and opened new prospects of study; it was precisely because of his interest in eugenics that Fisher developed mathematical population genetics. It should be noted that Galton’s eugenics included two programs, a program of study and a program of practical action. The latter was logically divided into two types: negative (limiting the number of births of people with hereditary defects) and positive (encouraging reproduction of the most valuable members of society). Galton remarked on that matter, “It is nice to invent eutopias,” and admitted that he allowed himself this pleasure.

Although one admires the research program of Galton, one should be very cautious about specific implementation of his program of practical action. The British eugenicists, based on sophisticated research methods, further developed Galton’s research program. Some of the American work, which was less sophisticated in its approach, based on class and racial feelings, increased interest and obtained serious financial support in the harsh conditions of the early 20th century, and this delayed other studies that later had great importance for the development of modern medical genetics. It was those American eugenicists who provided pseudoscientific justification for the 1924 law that limited immigration of certain races (the same law used when German Jews, threatened by concentration camps, fled to their relatives in the United States in 1940 and were sent from New York directly back into the Nazis’ hands). It was precisely those eugenicists who created the Indiana program (named after the state where it was first used), the compulsory sterilization by court order of “undesirable” persons. In the United States, tens of thousands were subjected to this procedure. In Europe, a law on compulsory sterilization was discussed and generated both interest and opposition. In Germany, following the 1933 law that banned marriages between Aryans and non-Aryans, a law was enacted on the sterilization of the mentally ill. (When the law was repealed, the initial concentration of the mentally ill in the population was reestablished, so the goal of racial cleansing was not achieved.) Such laws were adopted in all Scandinavian countries (in Denmark as early as 1929), in one of the Swiss counties, and in Estonia. In the United Kingdom, a law on voluntary sterilization was discussed starting in 1934 and was finally rejected in 1939. In France and Italy, no such law was discussed.

With the end of the Great Depression in the United States and the defeat of Nazism in Germany, these kinds of practical actions in demographic policy lost their former popularity. From that time, positive eugenics existed only as traditional measures for the care of mothers and newborns, professional and social hygiene, and negative eugenics existed as medical genetics.

---

\[a\] Babkov is probably referring to the fate of nearly 1000 Jewish refugees who sailed from Hamburg to Cuba in May 1939 aboard the *St. Louis*. Denied entry to Cuba or the United States, the passengers eventually were returned to Europe where just over a quarter perished in the Holocaust.—Ed.

\[1\] Voluntary sterilization for medical reasons is currently done in all countries with developed medical services.

\[2\] In the enthusiasm about biotechnology of the last 20 years, the term “positive eugenics” is used to describe plans for gene transplantations in humans to improve physical or mental abilities.
The beginning is the most interesting time. As in any field of human endeavor, science is based on something that is outside of itself, life circumstances specific to a certain time and place. This book clarifies the circumstances that inevitably led to the formulation of medical-genetic goals in our country, and the course of events as medical genetics was created and then liquidated. Stalin’s clear and still unexplained hatred of gene theory in our country resulted first in the folding of eugenics, then in the liquidation of human genetics, and later in the general ban of scientific genetics. These processes were preceded by massive campaigns of the agitprop from which the citizens learned their lesson: To be interested in human genetics was to endanger one’s life.

Meanwhile, Russian eugenics (an early stage of human genetics as well as human evolutionary studies) posed important and interesting issues. Based on the great traditions of Russian biology and medicine, and guided by N.K. Koltsov and other prominent biologists and physicians, it also lacked the abuses characteristic of the old-style American eugenics and German racial hygiene. On the contrary, the Russian Eugenics Journal of Koltsov constantly criticized any unjustified conclusions and deviations from strict scientific thought, which abounded in that period of general enthusiasm.

This book includes selected fundamental texts of the Russian eugenics movement and early Russian medical genetics, which have long been inaccessible to readers. Familiarity with discussions of the 1920s and the early 1930s on a number of issues concerning human evolution and genetics will no doubt be useful in social–ethical discussions of modern problems that arise in relation to the Genome Project, certain types of legal bills introduced in our parliament, as well as in the problems that will inevitably emerge in the process of globalization in which Russia is now also involved.
Index

Abich, H.W., Academician, 237, 250
Abramov, M.P., 395
Abrikosov, A.I., 469, 470
Academy of Sciences
attacks on members' defense of science, 680–682
campaign to keep Koltsnev out, 684
Academy of Sciences membership study (See Academy of Sciences membership study)
Academy of Sciences membership study
age at election and life span, 234–237
birthplace and place of origin, 240–243
children and grandchildren, 265–270
conclusions and observations from the survey, 276–278
data collection method, 230
date of birth and grouping of the data, 230–233
departments and specialties, 233
ethnic and social origin, 243–246
family status, 255–257
family trees illustrating outstanding lineages, 270–276
features of the intelligentsia, 279–280
higher education and activities prior to election, 237–240
limits and content of, 229–230
number of children of fathers and brothers and birth order, 257–260
occupations of fathers and brothers, 247–250
outstanding relatives, 250–255
Russian and foreign composition over 200 years, 227–229
spouses and their lineage, 261–265
Acosta, Uriel, 684, 686, 687
Adalurov, V.Ye., Academician, 228
Agol, I.I., 534, 536, 649, 654, 678, photo insert
Agranov, Ya.S., 57
Agro-Joint (American Jewish Joint Agricultural Corporation), 292
Akaky Akakievich (literary character), 437
Aksakov family, 63, 196
Aksakov, I.S., 263
Aksakov, K.S., 263
Aksakov, S.T., 263
Aksyonov, V.V., 201, 203
Alapovsky, L. "Muravey", 337
Alapovsky, V., 337
Alapovsky, Ye., 337
Albinism, 116
Albrecht, W., 561
Album of Confessions (L. F. Dostoevskaya), 441–442
Alchevskaya, Kh.D., 450
Alcoholism and natural selection, 143
Alexander I (Romanov), 321, 328, 335, 368, 386, 394, 408
Alexander II (Romanov), 325, 327, 409
Alexander III (Romanov), 409
Alexander the Great, 441, 646
All-Union Academy of Agricultural Sciences (VASKhNIL), 530, 535, 536, 537, 646, 656, 678–680, 686, 687, 691
All-Union Agricultural Exhibition (VSKhV), 630, 677
All-Union Communist Party (VKPb), 647
All-Union Institute of Plant Breeding (VIR), 207, 677
ALS (amyotrophic lateral sclerosis), 543–544
Altenburg, Edgar, 604, 605
Altruism. (See "Origin of Altruism, The"
Altukhov, Yu.P., Preface
Amenitsky, D.A., 306
American Breeders Association, 13
American eugenics. See Eugenics in America
American Genetic Association, 13
American Jewish Joint Agricultural Corporation, 292
American Joint (American Jewish Joint Agricultural Corporation), 292
Andreev, A.A., 469
Andreev, F.A., 531
Andreev, L.N., 462
Andres, A.G., 544, 545, 582, 593, 624, 654
Andreski, Stanislav L., 723
Andreyevich, Ya.M., 343
Anderson, N.I., Academician, 244, 260, 263, 267
Anesthesiologia, 428
Anfimov, V.Ya., 308, 415
Anna Ioannovna, 21
Anna Yaroslavna, 313
Anuus of Eugenics, The (Fisher), 11, 586
Annenkov, I.A., Decembrist, 388, 400
Annenkov, N.N., 388
Annenkova, V.N., 388
Anosov, P.P., mining engineer, 251
Anthropogenetics
card and (See "Anthropogenetics and Medicine"
place in a socialist state (See "Anthropogenetics and Eugenics in a Socialist Society"
trait inheritance and, 728–730
twin studies (See Twin studies)
Anthropogenetics and Eugenics in a Socialist Society" (Serebrovsky)
argument that relationships and emotions should not be a factor in reproduction, 514–515
conclusions from a blood type genofond analysis, 509–510
content of anthropogenetics, 505
eugenics’ inability to succeed in a capitalist society, 512–513
formula for possible gene combinations, 505
geographical genetics’ relevance to population analysis, 507–509
mutational process and, 510–511

749
Charles XI of Sweden, 372, 407
Chebyshev, P.L., Academician, 233, 250, 256
Chekhov, A.P., 79, 129, 462
Chemical bases of psychological features emotions, 99–104
instinct, 93–99
temperament, 89–93
Chepurkovsky, M.M., 502
Cherkasov, A.L., Baron, Decembrist, 395, 398
Cherkasov, L.A., 395
Cherkasov, N.G., 395
Cherkasskaya, K.P., Princess, 348
Cherkasskaya, M.B., 349
Cherkasky, V.A., Prince, 348, 365, 394
Chernopyatov, 403
Chernorutsky, M.V., 426
Chernova, O.A., photo insert
Chernyayevich, A.S. See Muravyova-Apostol, A.S.
Chernyayevich, Ye.a., née Kashkina, 343
Chernyayeva, F.N., Count, 244, 251, 389
Chernyayev, L., Count, 389
Chernyayev, Z., Count, 389
Chernyayev, Z.G., Count, Decembrist, 389, 395, 400, 401
Chernyayeva, A.G., Countess. See Muravyova, A.G.
Chernyayeva, N.P., née Princess Golitsyna, 359
Chernyayeva, Yekaterina I., Countess. See Vakulovskaya, Ye.I.
Chernyayeva, Yevdokia I., Countess, née Rzhsvaykava, 401
Chernyayevsky, N.G., 253
Chetverikov, N.S., 540, 544, 623, 693
Chetverikov, S.S., 63, 211–212, 467–470, 475, 540, 542, 546, 548, 625–626, photo insert
Filippchenko’s ignoring of his ideas, 211
political problems, 475
population genetics work, 63, 467, 468, 626, 628
rejection of eugenics, 470
Chetverikova, A.I., photo insert
Chicherin family, 155t, 357
Chicherin, V.I., 155t
Chicherina-Pushkina, O.V., 155t
Childhood mortality and natural selection, 140–141
Chinari (literary group), 1
Chinese Exclusion Act (U.S.), 15
Chistovich, Ya., 305
Chizh, V.F., 305, 306
Chizhov, D.S., professor, 395
Chizhov, N.A., Decembrist, 395
Choleric, 423
Christiansen, Karl, 720, 721
Chronicle of the Dostoevsky Family (Volotskoy), 307
Chugavin, L.A., chemist, 252
Chuklov, N.P., 155t, 197, 200, 318, 331, 357, 351, 355, 359
Claussen, W., 115, 359
Clinical applications of genetics. See "Anthropogenetics and Medicine"; "Genetics and Clinical Practice"; "Genetics and Pathology"
Clinical Archive of Genius and Talent (of Europatology) (Segalin), 213, 308, 460–463
Clinical Issues of Nervous Diseases (Davidenkov), 693
Clinical Psychotherapy Institute, 2
Club of Rome, 692, 698
Collier, Elizabeth, 310–311, 315. See also "Genealogy of Ch. Darwin and P. Galton"
Collier, Jeremy, 315
Colyear, Charles, Earl of Portmore, 315
Commission for the Study of Natural Productive Powers of Russia (KEPS), 205, 208, 210
Committee for the Study of the Jewish Race, 62
Committee of the Russian Ethnographic Society, 291–292
Conant, Levi Leonard, 124n17
Conditional reflexes and their psychological impact
analytic abilities, 119–121
attributes of brain interconnections, 127–128
brain nerve impulse development, 126–127
complexity of human synthetic center capacity development, 122
conditional reflex development in dogs, 121–122
critique of Spengler’s view of cultures, 133–135
cultures seen as a result of dominant constitutional types within the populace, 131–133
effectors of behavior, 117–119
familial analysis of acting talent, 129–130
finalist versus causalist thinking, 128–129
inherent nature of rational thinking ability, 128
inheritability of musical talent, 125–126
inheritance of mathematical abilities, 123–125
inherited ability to form groups of reflexes, 112–116
sensory abilities study, 116
speech center capacity variance between people, 122–123
Spengler’s analysis of cultures and, 130–133
study of the imagination, 130
Conditional tropisms, 656
Conference on Medical Genetics, 545–547
Conklin, E., 596
Conrad, 670
Constitutional Disposition to Internal Diseases (Die Konstitutionelle Disposition zu Inneren Krankheiten) (Bauer), 110–111
Copericus, Nicolaus, 108
Correns, Carl, 513, 601, 603
Creativity. See "On the Psychopathology of Creativity: V. Khelebnikov"
Index / 753

Crick, Francis, 550

Criminality
biological versus social argument of, 715–717
genetics of, 719–722
study of the Jews (See "Criminality of Jews")

"Criminality of Jews" (Vermel)
absence of data supporting inherent criminality, 300
among urban populations in Russia, 298
contents of published volumes on, 301–304
criteria for good data collection, 296
data from non-Russian countries, 296–298
historical influences on the Jewish temperament, 299–300
Jewish suitability for the study of the etiology of criminality, 295
statistical analysis of, 298–299

Culture
basis in constitutional types within populations, 130–135
selection in humans and (See "Impact of Culture on Selection in Humans")

Curtais, 670–671
Cycloid character type, 424, 425–427
Cytology studies, 544
Czartorysky, A., Prince, 368

Czechoslovak Eugenics Society, 12

Czerny, Adalbert, 140

Dahl, V.I., 271, 276, 358
Dahlberg, Gunnar, 468
Daltonism, 116
Dante, 429

depression, 426
Depressives, 426

Denar, J. Francis, 311
Demerec, M., 607
Deniker, J, 502
Demoff, V.A., Decembrist, 390
Divov, P.G., Senator, 390
Divov, V.A., Decemberrist, 390, 403

Dmitriev, I.I., 251, 271
Dmitriev-Mamonov, F.I., Count, 395
Dmitriev, I.I., 251, 271
Dolgorukova, I.P., Princess, née Princess

Dolgorukov, V.S., Prince, 408
Dolgorukov, S.G., Prince, 408

Dolgorukov family, 397, 398, 308, 474, 534,
Expressivity, 633–634

Do¨derlein, 562
Dokuchayev, V.V., 2

Dokuchayev, V.V., 2
Dokuchaev, V.V., 2

Dolgorukov family, 366, 397, 398,

Dolgorukov family, 366, 397, 398,
707–709, 722, 725, 732–736. See also "Genealogy of Ch. Darwin and F. Galton"

Doll, V., 2
Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,

Dolgorukov family, 397, 398, 308, 474, 534,
Dostoevsky family analysis
characterological colors of human personality, 457–459
compassionate behavior of Dostoevsky, 455–456
conclusions and assumptions, 454–455
connection between physique and character, 429–430
cycloid character type, 425–426
cycloid character type in the family, 426–427
Davidenkov’s critique of Volotskoy’s study, 631–632
epileptoid meticulousness in the Dostoevsky branch, 448–452, 453–454
epileptoid meticulousness in the Ivanov branch, 453
epileptoid pathologies, 447–448
epileptoid type and temper, 454
equipolar personality, 445–446
expressions of the meek pole, 443
facets of character that can be studied, 423
inheritability of epileptoid genes, 455–456
inheritance of epilepsy, 456–457
Kant’s four types of temperament, 423–424
Kretschmer’s characterological types, 424–426
masochistic behavior of Dostoevsky, 436
meek epileptoid in the family, 442–444
relational proportions of personalitites, 446–447
sadistic behavior of Dostoevsky, 438
schizoid character type, 427–430, 431–432
schizoid character type in the family, 432–433
scope of issues involved in an analysis, 422
willful epileptoid features among the family, 439–442
willfulness—meekness polarity in Dostoevsky, 434–435, 436–438
willfulness—meekness polarity in Dostoevsky’s writings, 433–434, 444–445
Dostoevsky, A.A., 263, 450, 451
Dostoevsky, Aleksey F., 442
Dostoevsky, Andrey F., 427
Dostoevsky, A.M., 450, 451
Dostoevsky, F.F., 442, 450
Dostoevsky, F.M., musician, 263
Dostoevsky, Fyodor Mikhailovich, 79, 107, 208, 263, 306, 422–459, 462, 463, 528, 529, 631. See also Dostoevsky family analysis
Dostoevsky, M.A., 459, 440, 448, 451, 453, 454, 456
Dostoevsky, M.M., 263, 437, 448, 450, 452
Downer-Zapolsky, M.V., 350
Down syndrome, 465, 737
Dozortseva, R.L., 684, 686
Dragomanov, M.P., 396
Dragomanov, Ya.A., poet, 396
Driesch, Hans, 136
Drimpelman, K.P., 409
Drosophila melanogaster (fly) application of heredity studies to medical genetics, 627
characteristics of linkage groups, 34–35
chromosomal theory of heredity and, 603
inheritance of characters of domesticated animals and plants and, 37–38
mechanism for inherited mutations in, 33–38
possible hidden effects of visible mutations, 36
relative irrelevance of recurring mutations, 37
specific modifiers of mutations in, 35–36
value of mutant types from a heredity point of view, 36–37
Dubrovina, N., 696
Dubrovskaya, S.T., 319
Dubrovskiy, K.P., 409
Dubrovina, N., 696
Dubrovskiy, V.D., 423
Dubovskiy, S.A. See Tolstaya, S.A.
Dyakov, N.N., Academician, 236, 252, 264, 268
Dyakov, A.N., 353
Dyakov, N.N., 346
Dzhugashvili. 427
Earle, Anna, 312
Edison, T.A., 153, 710
East, E.M., 601
Edinburg, T.V., 401
Engels, Friedrich, 522–524, 527, 549, 585, 599, 664, 703, 711, 712
Enthusiasm (film), 477
Environment versus heredity analysis of Peshkov family (See Peshkov, A.M.)
deep divide regarding study of heredity and environment, 636
environmental impact on realization of inborn mental abilities, 154–156
tests of phenotype expression dependence on external environments, 153–154
human inheritance paper by Morgan (See “Human Inheritance”) impact of the social environment on human evolution, 731
incomplete penetrance and environmental influences issue, 636
interaction of heredity and environment, 726
meaning of “environment” with regard to ethical development, 726
reality of both a nature and nurture contribution to human development, 727–728
role of modifier genes and the environment, 563–564
Epileptics, 16, 455–457. See also Dostoevsky family analysis
Epileptoid character type, 447–454
Equiloparal personality, 445–446
Expression of external dependence on inborn characteristics of mental abilities, 154–155
Ethics (Kropotkin), 734
Ethics and heredity. See “Origin of Altruism, The”
Ethnic group (natsiya), 299
Etkin, A.M., 2
Ettinger, 653
Eugenical News (Pushkin), 430
Eugenic News (U.S.), 14

754 / Index
Eugenics in America (See Eugenics in America)
Galton’s work involving (See Eugenics of Galton)
Koltsov’s position on (See “Improvement of the Human Race”)
micro- and macroevolution theory, 211
national interpretations of, 11–12
ORP views expressed by Batiks, 519–523
race studies (See “Goals and Methods of Studies of Racial Pathology”;
“Term ‘Race’ in Zoology and Anthropology”)
in Russia (See Eugenics in Russia)
view of the promise of (See “Our Eugenics Prospects”)
“Eugenic” (Batkis)
Florinsky’s “marriage hygienics”
See eugenic prospects for the future (See “Eugenics” (Batkis))
Eugenics Education Society (U.K.), 11, 29
Eugenics in America
anti-immigration focus of, 468
campaign against the “unfit,” 12–13
concepts popularized by, 14
criticism of eugenics by geneticists, 14–15
current reformist genetics, 17
eugenics’ belief that personal problems were due to mental retardation, 14
eugenics’ “inability to succeed in a capitalist society”, 512–513
focus on negative eugenics, 15
governmental control of immigration, 15
institutions and publications in support of, 13–14
laws regarding immigration and sterilization, 15–17
ranking of racial groups, 14
recommended curriculum plan for introducing eugenics in high school biology courses, 30–32
societies, 12
state of Anglo-American genetics, 586–587
Western eugenics’ misguided focus on selective breeding, 513
Eugenics in Russia
advocacy of, 17–18
eugenic propaganda in schools, 29–32
eugenic prospects for the future (See “Our Eugenics Prospects”)
Florinsky’s “marriage hygienics” book’s arguments, 24–27
Florinsky’s versus Galton’s views on improving the human race, 27
Florinsky’s views on heredity, 28
Intellectual background for discussion of, 18–19
movement’s basis in liberalism, 19
Muller’s letter to Stalin advocating positive eugenics, 659–666
official view that science must be a servant of agriculture, 677
politicalization of eugenics (See “Lamarxism”)
priority of the movement, 20–22, 23–28
promise of eugenics due to socialism (See “Anthropogenetics and Eugenics in a Socialist Society”) theme of a passion for new science, 18
“Eugenics in school” (Filipchenko), 29–32
Eugenics of Galton
advocacy of grouping people based on talents, 10
government to his work on heredity, 18
belief in positive eugenics, 9
classes of giftedness and, 280–281
genealogical component of his model, 8–9
genealogy of Galton (See “Genealogy of Ch. Darwin and F. Galton”) photo of Galton, photo insert proposed “law of regression,” 8
publications and conferences initiated by Galton, 11
suggestions for state support of a eugenics program, 10–11
Eugenics Quarterly (journal), 17
Eugenics Record Office (U.S.), 13–14, 15, 17
Eugenics Research Association, 14
Eugenics Review, The, 11
Euler, Johann Albrecht, 228
Euler, Leonard, 228
Evolutionary-Genetic Problems in Neuropathology (Davidenko), 625, 633, 656
“Evolutionary Genetics of Humaneness” (Astaurov), 725–736
anthropogenetics and trait inheritance, 725–730
evolutionary role of altruism as explored by Efronson, 735–736
fundamental role of heredity in human development, 725–726
group selection for social instincts theory, 732–735
impact of the social environment on human evolution, 731
interaction of heredity and environment, 726
meaning of “environment” with regard to ethical development, 726
reality of both a nature and nurture contribution to human development, 727–728
Social Darwinism, 731–732
twin studies on inherited traits, 729
Expectations of a New Man
application of Mendel’s laws to eugenics, 13
approaches to constructing the New Man, 2–3
discussion of a relationship between high intelligence and neurosis, 4
eugenics in Russia (See Eugenics in Russia)
eugenics in the U.S. (See Eugenics in America)
eugenics of Francis Galton (See Eugenics of Galton)
hereditary degeneration idea introduced in fiction, 3–4
Lamarckian perfection principle applied to generations, 4, 6
Malevich’s depiction of, 1–2
national characteristics of eugenics in the 1920s, 11–12
New Man envisioned as a genius, 3
psychological foundation for racism, 6
reflected in early Soviet Russia’s establishment of institutions, 2
science of human inheritance (See “Human Inheritance”)
social and biological hierarchies espoused by Muller, 6–7
study of heredity’s start in psychiatry, 3
Eyger, Ya.B., 502
Fadeev family, 407–410
Fadeev, A.M., 407, 408
Fadeev, M.I., 408
Fadeev, R.A., 335, 408, 409
Fadeeva, Ye.A.
Fadeeva, Yekaterina A.
Fadeev, R.A., 335, 408, 409
Fadeeva, Yekaterina A. See Witte, Ye.A.
Fadeeva, Yelena A. See Hahn, Ye.A.
Fadeeva, Ye.P., née Princess Dolgorukova, 394, 402, 407, 408
Falenberg, P.L., December, 395
Famintsyn, A.S., Academician, 237, 250, 260
Fanonnel, Jeanne, 443
Faraday, Michael, 108, 153
Faulkner, William, 465
Faustian culture, 132
Federley, H., 605
Felix, 21
Fére, Charles, 4
Ferri, L.V., photo insert
Ferman, A.Ye., 205, 210, 231, 252
Fet, A.A., 324, 396
Fetscher, R., 560
Feuilletonists (Tur Brothers), 647, 648
Feygel, I.I., 624
Fichte, Johann Gottlieb, 345
Filaret, Metropolitan, Academician, 229, 340
Filatov, D.P., 263, 734
Fileticheskaya evolyutsiya cheloveka (Phy-
letic Evolution of Man) (Novozhy-
byonov), 695
Filipchenko, G.Yu., 213
Filipchenko, N.P., 213
Index / 755
Filipchenko, Yu.A., (Continued) academic and institutional work, 206–209
Academy study (See Academy of Sciences membership study) advocacy of eugenics being taught in schools, 29–32 article on categorizing scholars (See “Our Outstanding Scholars”) article on eugenics in school (See “Eugenics in school”) Bulletin work (See Bulletin of the Bureau of Eugenics) criticism of neo-Lamarckism, 213, 529
difference in style compared to Koltsow, 206, 212
eugenic activities, 205
ereditary giftedness writings, 402 medical-eugenics program pursued by, 206 micro- and macroevolution theory, 211 paper on giftedness (See “Intelligence and Giftedness”) photograph of, photo insert plasmon hypothesis, 212, 627 recommended measures to maintain numbers of intelligentsia, 205
Russian Eugenics Society work, 62 Filippson, G.I., 348 Finkelshteyn, G.D., 302, 303 Filipson, G.I., 348 Finland, 16
Freymann, See von Freymann Fridman, B.D., 425, 438 Friedman, A.A., 1

756 / Index
second branch, 341–349
Wulf family and, 346–347
Gene pool. See Genofond
Genetical Theory of Natural Selection, The (Fisher), 342–343
“Genetic Analysis of the Psychological Features of Man” (Koltsov)
biological psychology and human regulatory systems, 88
chemical bases of emotions, 99–104
chemical bases of instinct, 93–99
chemical bases of temperaments, 89–93
constitutional reflexes. See Conditional reflexes and their psychological impact
constitutional types of temperaments, 103–108
evidence of a robust gene pool in Russia, 194–195
explanation of mental illness in some families, 192
importance of maternal contributions to inherited traits, 194
limited appreciation of heredity in autobiographies of famous people, 192–193
limits to knowledge of hereditary mental features, 87
nervous-psychological characteristics, 108–112
subjective psychology’s grouping of mental phenomena, 88–89
Genetic Record Office (U.S.), 17
“Genetics and Clinical Practice” (Davidenkov)
conclusions, 620
doctors’ skepticism about genetics, 614–615
examples of theoretical and practical applications of genetics to medicine, 615–616
family history’s importance to clinical diagnoses, 618
medical researchers study of the pleiotropic effects of pathological genes, 616
need to expand the field of medical genetics, 617
social-hygiene applications of genetics, 618–620
study of pathological mutations, 617
“Genetics and Pathology” (Levit)
clinical differentiation of pathologies, 557–558
connection between pathology and genetics, 552
example of how genetic analysis can be useful, 560–562
genetics’ role in Soviet medicine, 563
importance of the study of genetics, 556
information derivable from familial type analysis, 562–563
information derived from genetic analysis of a disease, 555–556
obstacles to the diagnosis of hereditary nature of a disease, 556
pathological forms of diseases, 554–556
problem of ignorance of etiology of diseases, 553–554
question of genetics study being advanced enough to be of clinical value, 558–560
role of modifier genes and the environment, 563–564
Genetics and Us (Genetika i my), 695, 737–738
Genetics Bureau, 294
Genetics studies by Morgan. See “Human Inheritance”
Genetics studies using twins. See Twin studies
Genius and Madness (Lombroso), 4
Genkin, I.L., 302
Genofond (gene pool), 63, 195, 508–509
Genofond (gene pool), 63, 195, 508–509
Genshin, S.Ya., 350
Gershenzon, S.M., 628, photo insert
Gershenzon, A.O., 303
German Society for Racial Hygiene, 12
German Jewish family birthrate, 149–150
Goebbels, 12
Goeze, 272
Goldberg, H., 14
Goldblat, G.O., 302
Goldschneider, A., 554, 564
Goldschmidt, Richard, 97, 211, 487, 549, 627
Goldshtein, 300
Golenovskaya, A.M., 426
Golenovsky family, 335, 426
Golitsyn family, 358–359, 361, 364–365, 390
Golitsyn, A.A., Prince, 394
Golitsyn, A.I, Prince, 399
Golitsyn, A.M., Prince, 399
Golitsyn, A.N., Prince, 399
Golitsyn, B.B., Prince, Academician, geophysicist, 235, 244, 251, 256, 394
Golitsyn, D.D., Prince, 399
Golitsyn, D.M., Prince, 397
Golitsyn, M.M., Prince, 397
Golitsyn, N.B., Prince, 399
Golitsyn, P.B., Prince, Decembrist, 318, 364
Golitsyn, V.N., Prince.
Golitsyn, Ye.D., Princess, 394
Golovin, B.I., 320
Golovin, F.A., 358
Golovin, I.M., 323, 358
Golovin, K.F., novelist, 344, 351
Golovin family, 323, 330, 357–358
Golovitsyn, V.N., Princess. See Golovina, V.N.
Golovitsyn, Ye.D., Princess, 394
Golovitsyn, Ye.M., Princess, née Bobrishcheva-Pushkina, 390
Golokhvatov family, 369
Golovin family, 323, 330, 357–358
Golovin, E.A., 358
Golovin, I.M., 323, 358
Golovin, K.F., novelist, 344, 351
Golovina, O.I. See Trubetskaya, O.I.
Golovina, V.N., née Princess Golitsyna, 335
Golovina, Ye.I. See Pushkina, Ye.I.
Golovinskaya, K.A., Preface
Golovkin family, 330
Golovkin, G.I., Count, 397
Goltsev, 404
Golutvinsky, Ye.Ye., Academician, 235, 246, 256, 260
Golubov, 403
Gomcharov, L.A., 123, 348
imaginary numbers in geometry
improvement and degeneration of the “improvement of the human race”

See Ilyina, Ye.V.
Ikonnikov, V.S., Academician, 235, 237, 580, 581
Ignatyev, M.V., 542, 544, 580, 581
IEB (Institute of Experimental Biology), 648
Idlis, G.M., Preface
Idelchik, Kh.I., 648
Iceland, 16
Ibsen, Henrik, 107
Mental illness focus in eugenics
(Continued)
instances of mental illness in
Decembrists, 400–402
limits to knowledge of hereditary
mental features, 87
Mental Diseases in Pictures and Images
(Zinovyev), 307
observations of the Tolstoy family,
329
sterilization laws and, 16
subjective psychology’s grouping of
mental phenomena, 88–89
Menzbir, M.A., 472
Meshcherskaya, N.A., Princess, ne´e
Merezhkovsky, D.S., 318
Meshchersky, V.I., Prince, 363
Meshchersky family, 363, 369
Meshcherskaia, N.B., Princess, 368
Mikhail Vsevolodich, Prince
Mikhaelis, L.S., 450
Middendorf, A.F., Academician, 229
Michurin, I.V., 693
Miloslavskaya, A.M.
See
Miller, V.F., Academician, 244, 254,
452
Miller, O.F., 452
Mikhaylovsky, N.G., 438
Milyutina, Ye.P., ne´e Kiselyova, 394
Milyutin, Yu.N., 394
Milyutin, N.A., 365, 394
Milyutin, D.A., Count, 394, 409
Milyutin, Yu.N., 394
Milyutina, Ye.F., ne´e Kisyelova, 394
Mintsev, V.L., 460, 462
Mirabeau, Comte de, 107
Mirenova, A.N., 579, 622, 624
Mirovich, P.F., 368
Mirovich, P.F., 368
Mirovich, V.L., ne´e Polubotok, 367–368
Mirovich, V.Ya., 368
Mirovich, Ya.F., 368
Mirzoyan, E.N., Preface
Mitin, M.B., 533, 696
Mjo¨en, Jon Alfred, 29
Mkrtchyanunts, A.L., 621
Modzalevsky, B.L., 227, 229, 335, 336,
330, 347, 351, 370, 403, 404
Mohammed, 79, 86,
555, 600, 604–607, 610, 611, 613,
614, 623, 641–652, 653, 658–666,
advocacy of positive eugenics, 470,
473–474
affinity for the Soviet Union, 641–643
Odoevsky, E.S., Prince, 153t
Odoevsky, L.S., Prince, 153t
Odoevsky, L.V., Prince, 319
Odoevsky, N.I., Prince, 399
Odoevsky, N.L., Prince, 153t
Odoevsky, V.F., Prince, writer, 155t, 319, 393
Odoevsky, V.I., Prince, 153t
Offerman, C., photo insert
Ogareva, Liza, 370
Ogurtsov, A.P., 205
Oldenburg, S.F., 230, 244, 252, 264, 268
OLEAE (Society of Naturalists, Archaeologists, and Ethnographers), 61
Olenov, Yu.M., 689
Olenokina, M.S., 209
Omeliansky, V.L., Academician, 256
Olenov, Yu.M., 689
Onegin, Eugene (literary character), 97
"On Hereditary Predisposition to Brain Diseases" (Moreau de Tours), 3
On New Methods of Field Cultivation (Petrovich), 352
"On the Goals of Pathographic Work" (Zinovyev), 307
On the Origin of Species (Darwin), 211, 527, 732, 735
"On the Psychopathology of Creativity: V. Khlebnikov" (Anfinov) abnormal behavior and musings, 417–418
examples of his creative work, 420–421
experimental-psychological study results, 419–420
family history of inherited psychiatric problems, 415–416
occupations and wanderings during his life, 416–417
psychological analysis of, 418
Oppenheim, D.G., 655
Orbeli, L.A., photo insert
Ordynov (literary character), 431
"Origin of Altruism, The" (Eftimovin), 695
biological factors’ influence on the social factor of marriage, 711–712
biological versus social argument of criminality, 715–717
conclusions about the evolutionary development of ethical norms, 714–715
evolutionary-genetic analysis of family bonds, 707–708
evolution of the instinct of social self-preservation, 703–705
genetics of criminality, 719–722
genetic theory of group selection, 708–709
hereditary biochemical heterogeneity of higher organisms, 717–718
hereditary diseases that cause an emotional-ethical degradation, 718–719
historical evidence of innate egotism in man, 700–701
instinctual altruistic behavior in primates, 702–703
issue of existence of respect for all age groups in human society, 709–710
natural selection process leading to dominance of altruism, 705–707
natural selection’s role in curiosity and aesthetic sense, 710–711
origin of monogamous love, 712–714
probability of a genetic basis of morality, 701
publication of, 695
question of conscience being determined by heredity, 723–724
role of a person’s upbringing in their moral development, 699, 700
theory of natural egotism versus existence of heroism, 701–702
Orlov family, 397, 401
Orlov (literary character), 434
Orlov, M.F., Decemberist, 397, 399, 401
Orlova, A.A., Countess, 399
Orlova, V.I., 622
Orlova, Ye.N., 391
Orlova-Davydova, O.I., Countess, 365
Orlov family, 397, 401
Orlov family, 397, 401
Orlov, M.F., Decemberist, 397, 399, 401
Orlova, A.A., Countess, 399
Orlova, V.I., 622
Orlova, Ye.N., 391
Orlova-Davydova, O.I., Countess, 365
Oryol, V.M., Preface
"Our Eugenics Prospects" (Davidenkov) plan for eugenic evaluation of the populace, 53
"Our Outstanding Scholars" (Filipchenko), 215–226
"Out of the Night" (Muller), 7, 643
Oswald, 569
Osterman-Tolstoy, A.I., 400
Osterman-Tolstaya, Ye.A., Countess, 400
Osterman-Tolstoy, A.I., 400
Ostrooumov, A.A., 612
Ostrovsky, A.N., 98, 99
Ostwald, W., 613
Osipov, V.P., 198
Osten-Sacken, A.I., Countess, 322
Osterman-Tolstaya, Ye.A., Countess, 400
Osterman-Tolstoy, A.I., 400
Otto, Robert, 8
OZET (Society for Land Settlement of Jewish Workers), 292
Ozeretskovskii, N.Ya., Academician, 228
Ozernyuk, N.D., Preface
OZET (Society for Land Settlement of Jewish Workers), 292
Pages of My Life (Chaliapin), 181–183
Pagen, Anne, 313
Paget, Lord, 313
Pahlen Commission, 295
Painter, Theophalus S., 604
Paisy Uglitsky, Venerable St., 362
Palechek, M., 348
Russian Eugenics Society (REO)

Russian eugenics.

Ruprecht, F.I., Academician, 235, 260

Rumovsky, S.Ya., Academician, 228

Rummel, 403

Rudnev, V.I., 462, 463

formation and organization, 59

contents of published volumes, 61, 63, 196–203

Count Witte genealogy (See "Ancestors of Count S.Yu. Witte")

creativity analysis (See "On the Psychopathology of Creativity: V. Vsekhvikov")

criticism of degeneration idea, 212–213

Darwin and Galton genealogy (See "Genealogy of Ch. Darwin and F. Galton")

Dostoevsky genealogy (See Dostoevsky family analysis)

editorial view of Koltsov, 19

emergence of two eugenics journals, 209–210

headed by Koltsov, 59

hereditary analysis of Decembrists (See "Decembrists")

interest in by specialists and the general public, 291

Koltsov on culture and selection (See "Impact of Culture on Selection in Humans")

Koltsov on eugenics (See "Improvement of the Human Race")

Koltsov on heredity of talent (See "Genealogies of Our Vydvihenty")

Koltsov on the genetics of psychology (See "Genetic Analysis of the Psychological Features of Man")

Muravyov family genealogy (See "Genealogy of the Decembrist Muravyovs")

prehistory of the eugenics movement, 23–28

Shaftrov family genealogy (See "On the Descendants of Baron Pyotr Pavlovich Shaftrov")

studies of Jews (See "Criminality of Jews")

Tolstoy genealogy (See "Genealogy of the Count Tolstoys")

von Baer genealogy, 374–386

Russian Eugenics Society (REO)

bylaws stating purpose and plans for, 59–60

collaborations and outreach programs, 61–62

committees to study Jews, 291–292

dissemination of genetic knowledge focus, 65

focus on eugenics propaganda, 63 formation and organization, 59

growth in membership and branches, 62–63

independent societies affiliated with, 291, 293–294

journal contents (See Russian Eugenics Journal)

Koltsov and Filippchenko's disagreements over eugenics, 293

Koltsov's aversion to the idea that genius is a pathology, 64–65

Koltsov's belief in the need for eugenics, 57

Koltsov's stressing of the role of biological diversity, 64

paper on eugenics (See "Improvement of the Human Race")

paper on natural selection (See "Impact of Culture on Selection in Humans")

paper on self-made men (See "Genealogies of Our Vydvihenty")

paper on the genetics of psychological features (See "Genetic Analysis of the Psychological Features of Man")

popularity of medical-eugenic ideas, 294

presentations on eugenics and genetics, 60–61

as a reflection of the eugenics movement, 468–469

research directions pursued by Chetverikov, 63–64

society's critical view of negative eugenics, 64

Russian Psychoanalytical Society, 2

"Russian Works on Human Constitu-

tion" (Vishnevsky), 307

R-v, Zinaida. See Hahn, Ye.A.

Rychkov, Yu.G., 694

Rykachev, M.A., Academician, 251, 263, 267

Ryleev, F.A., 398

Ryleev, K.F, Decembrist, 398, 403

Ryleeva, A.M., nee Essen, 398

Rykin, I.A., 578, 579, 592, 594, 622, 623, 624

Ryzh, P.L., 647

Rzhevskaya, D.G., nee Sokovnina, 401

Rzhevskaya, L.F., educator, 347

Rzhevskaya, Ye.I. See Chernyshcheva, Yevdokia I.

Rzhevsky family, 359

Rzhevskiy, A.V., 393, 399

Rzhevskiy, I.I., 359

Sabolukov, A.A., 392

Sabolukov, Aleksandr A., 392

Sabolukova, Ye.A., nee Volkova, 392

Sacheverel-Pole, Edward, 311

Sadovnikova-Sadovnikova-Koltsova, M.P., 111, 120, 124, 175, 684, 688, photo insert

Sadosovsky family, 118

Saint-Hilaire, Geoffroy, 525

Saint-Hilaire, K.K., zoology professor, 264

Sakanyan, Ye.S., 628, 643, 690, 695, 696, 698, 737, photo insert

Sakharov, A.D., 692–693

Sakharov, G.P., 198

Sakharov, P., 622

Sakharov, V.V., 62, 137, 198, 469, 471, 472, photo insert

Sakharova, L.N., photo insert

Salamanandr (Lunacharsky's screenplay), 526

Saltykov family, 359, 365

Saltykov, M.G., 397

Saltykov, Ye.S., Countess, nee
countess Tolstaya, 328

Salvini family, 118

Samarin family, 335, 363

Samarin, E.V., Acting State Councilor, 363

Samarin, M.M., Senator, 363


Sanguinics, 423

Sanson, Andre, 26

Saepigen, A.A., 686

Sapir, J.D., 573

Saradzhishvili, P.M., 633

Sauerbruch, E.F., 553, 565

Savich, A.N., photo insert

Savich, N.G., photo insert

Savich, V.O., photo insert

Savile, Henry, 315

Savina, T.A., 391

Savitskaya, L.S., 193

Savonarola, Girolamo, 108, 429

Savostyanova, V.A., 450

Schallmeyer, W., 520

Schau mann, 554

Scheck, test, 490

Schiller, Ferdinand Canning Scott, 523

Schiller, Friedrich, 107

Schizoid character type, 424, 427–433

Schliemann, Heinrich, archaeologist, 263

Schloessmann, 562, 563

Schneider, Kurt, 419, 429

Schrenk, L.I., Academician, 250

Sechenov family, 271

Sechenov, L.M., 89, 126, 186, 263, 271, 527

Sechenov, M., landowner, 276

Sechenov, R.M., 276

Sedley, William, Sir, 315

Sedev, Otto, 149

Segalin, G.V., 2, 64, 201, 213, 293, 308, 443, 460, 461, 462, 463

Seitmann, 142

Selected Works on Genetics (Muller), 652

Self-made men. See "Genealogies of Our Vydvihenty"

Selivanov, A.L., ethnographer, 264

Semashko, N.A., 61, 63, 293, 469, 475

Semenskaya, Ye.M., 302

Semyonov family, 270

Semyonov, L.P., 340

Semyonov, N.N., 691

Semyonov, N.P., landowner, 273

Semyonov, P.N., writer, 264

Semyonov, V.N., writer, 264

Semyonova, A.N., nee Blank, 400

Semyonova, N.P., 270, 273
“Theoretical Genetics” (Muller)
(Continued)
clinical application of knowledge of heredity, 607
Drosophila studies, 603
establishment of the gene as the basis of life, 606
gene mutation study, 606–607
genetics of traits study, 605
heredity of interspecific crosses study, 605–606
law of linear linkage, 604
materialistic foundations of genetics, 601
reconstitution and reappraisal of Mendel’s laws, 600–601, 606
Third International Congress of Eugenics, 468
Three Songs about Lenin (film), 477
Tieszenhausen, V. (W.S.) K., Decembrist, 256
Tienoven, B.P., 476, 534
Tol, S.D., Countess, neé Countess Tolkin, B.P., 476, 534
Tinyakov, G.G., 628
Timofeev-Ressovsky, D.N. (“Fomka”), 772
Timofeeva-Ressovskaya, Ye.A., photo
Timiryazev, K.A., 678, 682
Tikhonravov, N.S., Academician, 246, 256,
Tiesenhausen, V. (W.S.) K., Decembrist, 246
Three Songs about Lenin (film), 477
“Theoretical Genetics” (Muller)”
(Continued)
clinical application of knowledge of heredity, 607
Drosophila studies, 603
establishment of the gene as the basis of life, 606
gene mutation study, 606–607
genetics of traits study, 605
heredity of interspecific crosses study, 605–606
law of linear linkage, 604
materialistic foundations of genetics, 601
reconstruction and reappraisal of Mendel’s laws, 600–601, 606
Third International Congress of Eugenics, 468
Three Songs about Lenin (film), 477
Tieszenhausen, V. (W.S.) K., Decembrist, 402
Tikhonravov, N.S., Academician, 246, 256,
Tikhovinsky, 559
Timinyan, K.A., 678, 682
Timofeeva-Ressovskaya, Ye.A., photo
Timofeev-Ressovsky, D.N. ("Fomka"), 402
photo insert
banning of his book, 657
disinterested in eugenics, 469
radiation effects studies, 689–693
radiation effects studies, 689–693
release from prison, 698
Tinyakov, G.G., 628
Tokin, B.P., 476, 534
Tol, S.D., Countess, neé Countess Tolstaya, 327
Tolstaya, A.A., Countess, 325, 329
Tolstaya, A.F., Countess, neé Dudina, 321
Tolstaya, A.F., Countess. See Zakrevskaya, A.F.
Tolstaya, A.G., Countess, neé Princeess Gruzinyska, 328
Tolstaya, A.I., Countess, neé Ivanova, 321
Tolstaya, A.I., Countess. See Osten-Sacken, A.I.
Tolstaya, A.L., Countess, neé Turgeneva, 328
Tolstaya, A.N., Countess, neé Princess Shcherbatova, 325
Tolstaya, A.Ye., Countess, neé Princess Gruzinyska, 400
Tolstaya, M.A., Countess, neé Princess Golitsyna, 328
Tolstaya, M.F., Countess. See Kamenetskaya, M.F.
<table>
<thead>
<tr>
<th>Name</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zenin family</td>
<td>191</td>
</tr>
<tr>
<td>0.10 exhibition</td>
<td>1</td>
</tr>
<tr>
<td>Zhavelin, S.N.</td>
<td>301</td>
</tr>
<tr>
<td>Zhbankov, D.N.</td>
<td>202</td>
</tr>
<tr>
<td>Zhdanov, I.N., Academician</td>
<td>246, 253, 260</td>
</tr>
<tr>
<td>Zhelikhovskaya, V.P.</td>
<td>334, 408</td>
</tr>
<tr>
<td>Zhenshuzhnikov family</td>
<td>321</td>
</tr>
<tr>
<td>Zhenshuzhnikov, A.M.</td>
<td>321</td>
</tr>
<tr>
<td>Zhenshuzhnikov, L.M.</td>
<td>321</td>
</tr>
<tr>
<td>Zhenshuzhnikov, M.A.</td>
<td>320</td>
</tr>
<tr>
<td>Zhenshuzhnikov, V.M.</td>
<td>321</td>
</tr>
<tr>
<td>Zhishina, S.G.</td>
<td>623</td>
</tr>
<tr>
<td>Zhiv</td>
<td>582</td>
</tr>
<tr>
<td>Zhivago, P.I., photo insert</td>
<td></td>
</tr>
<tr>
<td>Zhivago, T.P., photo insert</td>
<td></td>
</tr>
<tr>
<td>Zhukov, N.I.</td>
<td>402</td>
</tr>
<tr>
<td>Zhukovsky, Valentin A., Professor, Orientalist</td>
<td>264</td>
</tr>
<tr>
<td>Zhukovsky, Vasily A., poet, Academician</td>
<td>229</td>
</tr>
<tr>
<td>Zinger, L.G.</td>
<td>302, 303</td>
</tr>
<tr>
<td>Zinin, N.N., Academician</td>
<td>260, 267</td>
</tr>
<tr>
<td>Zinovyev, P.M.</td>
<td>307, 416, 425–426, 573</td>
</tr>
<tr>
<td>Zmeev, I.F.</td>
<td>23, 24</td>
</tr>
<tr>
<td>Zola, Émile</td>
<td>3</td>
</tr>
<tr>
<td>Zolotaryov, V.</td>
<td>201, 202, 355, 388</td>
</tr>
<tr>
<td>Zolotaryov, Ye.I., Academician</td>
<td>235, 236, 246, 256, 260</td>
</tr>
<tr>
<td>Zoonomia (Erasmus Darwin)</td>
<td>310</td>
</tr>
<tr>
<td>Zootechnics</td>
<td>70</td>
</tr>
<tr>
<td>Zosima, Father (literary character)</td>
<td>434</td>
</tr>
<tr>
<td>Zuev, Academician</td>
<td>228</td>
</tr>
<tr>
<td>Zuytin, A.I.</td>
<td>288, 289</td>
</tr>
<tr>
<td>Zvenigorodsky family</td>
<td>359</td>
</tr>
<tr>
<td>Zweig, Stefan</td>
<td>723</td>
</tr>
<tr>
<td>Zweikindersystem</td>
<td>284</td>
</tr>
</tbody>
</table>