4 Abortions, Eugenics, and Artificial Reproduction in the Soviet Union, 1920–1936

Alexei Kojevnikov and Kirill Rossiianov

A mass movement for women's rights arose in the Russian Empire ca. 1860, with one of its primary demands for access to higher education. At the time when universities accepted only male students, hundreds, then thousands of young women pushed for desegregation by auditing classes, obtaining academic degrees, traveling to other countries in Europe, and asking for special permissions to enroll (Koblitz 1988; Stites 1978). By the century's end, special colleges for women and/or individual precedents of female students studying at predominantly male universities became common enough, paving the way toward the official adoption of co-education in most European countries following WWI. One of the first acts of the Russian Revolution in 1917 was to allow equal rights for women to study at every educational institution, any level and field. Ending legal discrimination did not, of course, mean factual equality, as post-revolutionary generations of students continued advancing through educational and academic ranks facing informal prejudices, inequitable governance, and glass ceilings. It took two additional decades until at least some female scientists reached the very top echelons of Soviet research establishment.

In the meantime, new reproductive technologies and practices that had been considered ideologically unacceptable prior to the 1917 Revolution—abortion, birth control, and artificial insemination—became openly available during the 1920s. Together with the early Soviet legislation on family and marriage, libertarian even by today's standards, and decriminalization of homosexuality, they created a social and intellectual environment conducive to experimentation with sensitive issues of human reproduction. Ilya Ivanov, a pioneer in artificial insemination of mammals, attempted to confirm Darwin's theory of human evolution by crossbreeding humans and apes (Rossiianov 2002). Antonina Shorokhova developed and applied the techniques of artificial insemination for human patients in gynecological clinics in Tashkent. Vera Danchakova returned to revolutionary Russia in 1926 to undertake a program of experimental research with human embryos provided by an abortion clinic, with the goal to grow and develop fetal tissues outside maternal bodies.

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While extending technological options to govern the human bodies, these new scientific approaches also allowed some opportunities for women's own government of and through science. This paper focuses primarily on the spectrum of relationships between new reproductive practices and the discussion of women's liberation in the revolutionary Russian society and government of the 1920s, including women's control over their own bodies and reproductive future. They were part of a more general, leftist, and modernist project that envisioned plasticity and flexibility of human nature challenging traditional gender roles and bio-social boundaries. While pioneering many women's rights in the social and public sphere, the Soviet society continued to be more resistant toward radical proposals for women's sexual liberation. The new techniques of human reproduction, however, enabled discussions of new, emerging "women's rights": for birth control, independence from men in pregnancy and motherhood, choosing genetic material for reproduction, and hormonal sex change.

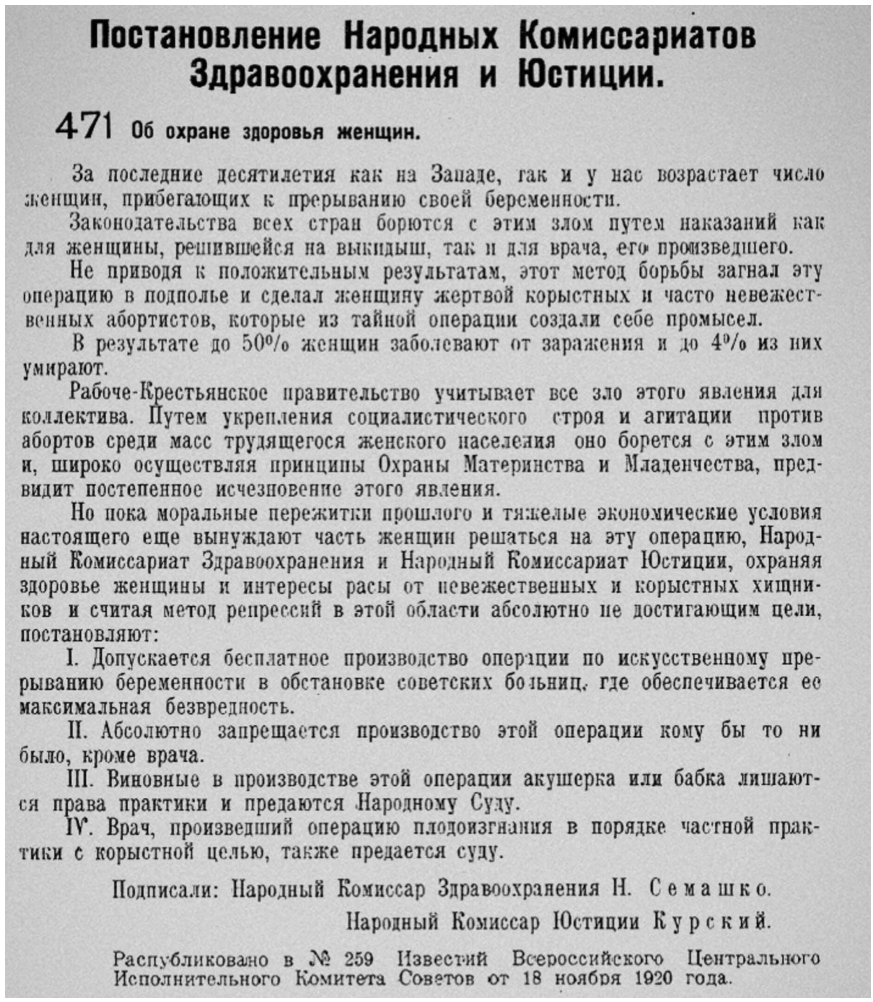
Legalization of Abortions, Act I

November 2020 marked the hundredth anniversary of the first decision by a modern state to legalize abortions and to make the procedure freely available in medical clinics, upon a woman's demand. We provide below the full translation of the pathbreaking decree that is often referenced but only briefly analyzed in historical literature (Goldman 1993: 255) (see Figure 4.1).

"Decision of the People's Commissariats of Public Health and Justice No. 471: On Protection of Women's Health.

In recent decades, the number of women who resort to aborting their pregnancies has been increasing both here and in the West. In all countries, legislation is fighting this evil by punishing women who decide to induce a miscarriage as well as physicians who perform it. Far from producing positive results, this method of fighting has pushed the operation underground and turned women into victims of egoistic and often ignorant abortionists, profiteers from covert operations. As a result, up to 50% of women become infected, and up to 4% die.

The Workers' and Peasants' Government takes into consideration the harmful effects of this phenomenon on the collective. It is fighting this evil by strengthening socialist society and by agitating against abortions among the working female population. By broader realization of the principles of Protection of Maternity and Infancy, it envisions gradual disappearance of this practice. In the meantime, moral vestiges of the past and difficult economic conditions of the present are still forcing some women to decide upon such a procedure. The People's Commissariat of Public Health and the People's Commissariat of Justice, acting to protect women's health and the wellbeing of race from ignorant



Постановление Народных Комиссариатов Здравоохранения и Юстиции.

471 Об охране здоровья женщин.

За последние десятилетия как на Западе, так и у нас возрастает число женщин, прибегающих к прерыванию своей беременности.

Законодательства всех стран борются с этим злом путем наказаний как для женщины, решившейся на выкидыш, так и для врача, его произведшего.

Не приводя к положительным результатам, этот метод борьбы загнал эту операцию в подполье и сделал женщину жертвой корыстных и часто невежественных абортистов, которые из тайной операции создали себе промысел.

В результате до 50% женщин заболевают от заражения и до 4% из них умирают.

Рабоче-Крестьянское правительство учитывает все зло этого явления для коллектива. Путем укрепления социалистического строя и агитации против абортов среди масс трудящегося женского населения оно борется с этим злом и, широко осуществляя принципы Охраны Материнства и Младенчества, предвидит постепенное исчезновение этого явления.

Но пока моральные пережитки прошлого и тяжелые экономические условия настоящего еще вынуждают часть женщин решаться на эту операцию, Народный Комиссариат Здравоохранения и Народный Комиссариат Юстиции, охраняя здоровье женщины и интересы расы от невежественных и корыстных хищников и считая метод репрессий в этой области абсолютно не достигающим цели, постановляют:

I. Допускается бесплатное производство операции по искусственному прерыванию беременности в обстановке советских больниц, где обеспечивается ее максимальная безвредность.

II. Абсолютно запрещается производство этой операции кому бы то ни было, кроме врача.

III. Виновные в производстве этой операции акушерка или бабка лишаются права практики и предаются Народному Суду.

IV. Врач, произведший операцию плодоизгнания в порядке частной практики с корыстной целью, также предается суду.

Подписали: Народный Комиссар Здравоохранения Н. Семашко.

Народный Комиссар Юстиции Курский.

Распубликовано в № 259 Известий Всероссийского Центрального Исполнительного Комитета Советов от 18 ноября 1920 года.

Figure 4.1 Newspaper announcement of the November 1920 decree. Public Domain.

and mercenary predators, and considering the repressive method in this field absolutely incapable of attaining its goal, have decided:

1 To allow performing the procedure of the artificial interruption of pregnancy free of charge and in the conditions of Soviet clinics, where its maximal harmlessness is ensured;
2 To completely ban the performance of this procedure by anyone except a professional physician;
3 Midwives or birth helpers guilty of performing this procedure will be prosecuted in People's Court and lose their right to provide midwifery;

4 Physicians who perform the procedure of miscarriage in their private practice for profit will also be prosecuted in court.

Signed: People's Commissar of Public Health, *N. Semashko*, People's Commissar of Justice, *Kurskiy*." Published in *Izvestiia of the All-Russian Central Executive Committee of the Soviets*, # 259, on 18 November 1920.

The brevity and tone of this groundbreaking governmental decision convey that its authors, in particular Nikolai Semashko, did not attach strong ideological meanings and political importance that their decision would eventually acquire in later Soviet and international perspectives. At the time of its introduction, legal abortion was not yet understood or propagandized as a fundamental principle of women's rights, but primarily as a pragmatic if regrettable, temporary medical necessity. A hypothetical possibility of relaxing the ban on abortions had been discussed prior to the revolution among some medical doctors. It was not a political priority either for Marxist revolutionaries, the Bolshevik government that had just barely survived the devastating Civil War, or for women's liberation movement, including its foremost radical spokesperson, Alexandra Kollontai.[1]

The initiative thus came from medical authorities who legalized abortions as an emergency measure to protect women's health, a lesser "evil" as compared to the widespread, unrecognized, unprofessional, and often lethal practice which the state was unable to prevent (see Figure 4.2). Though presented as a pragmatic concession rather than a proudly proclaimed ideological principle, the decision certainly relied on revolutionary politics as a precondition, which explains why Bolshevik authorities were able to take this unconventional step. By revolutionary instincts, the government was strongly inclined to disrespect religious prohibitions and beliefs that motivated many of the existing legal bans in the sphere of sex and marriage. It thus adopted a libertarian attitude and easily canceled many restrictions, including those imposed on divorce, illegitimate children, and homosexuals—and also on abortions, despite disapproving the latter practice.[2] Their openly anti-capitalist argument shifted the blame from poor women in precarious situations to private providers and profit-makers, hence the decision to offer abortions in state clinics without requiring any payment. As Marxists, Soviet officials saw the primary cause of abortions in economic conditions that made it difficult for women to provide for their future babies and were optimistic that once liberated from such fears by the improvement of economy and social welfare, women would feel much less compelled to seek deliberate termination of pregnancy.

"The wellbeing of race" is an untypical for Bolsheviks turn of phrase reflecting an input from Russian eugenicists, in their culturally specific meaning referring not to any particular racial group or ethnicity of the country's diverse demographics, but to the social hygiene of all its population in entirety, in a meaning closer to that of "the human race" in English. Meanwhile,

Figure 4.2 Early Soviet visual propaganda against unprofessional abortions, 1920 (Il'ina 2019: 58). Public domain.

activists of women's emancipation, in particular Kollontai, focused primarily on developing gender equality in public and social life, "equal pay for equal work", and equal access to education and professions (Kollontai 1977: 39). In the sphere of gender relations, Kollontai pushed for a new, libertarian marriage code, social welfare, support for maternity and childcare, women's liberation from housework burdens, and greater sexual freedoms. Ahead of time in many other aspects of radical feminism, Kollontai refrained from extending the concept of "women's rights" to abortions—the latter did not figure prominently in her discourse—but accepted the logic of the medical establishment and generally supported the legalization decree. Her goal was not to emancipate women from maternity, which, in her time, in the absence of any effective birth control, would have practically implied religiously motivated sexual abstinence. Instead, she strove for recognition of specifically women's rights to safe and protected "childbearing and motherhood", which, in her opinion, was also a moral and "social obligation" for any woman as "the reproducer of the race" (Kollontai 1977: 145–146). The term "race" here also reflected Kollontai's awareness of eugenics in its Soviet version and, as in the text of the 1920 decree, referred to the overall population in demographic sense. Strongly pro-natalist in general, as almost everyone in the Russian society at the time, Kollontai deviated from this standard stance

at least once, when she defended birth control: "Let there be fewer children born but let them be of better 'quality'. Every child should be wanted by its mother" (Kollontai 1977: 309).

The gradual development of attitudes toward abortion as a woman's right followed from, rather than preceded the established practice. Already in the 1920s, abortions were effectively understood as a patient's right, since government regulations obliged doctors to provide this service to women upon request. With growing numbers of cases, also due to a partial return to capitalism under the New Economic Policy, this right was also formalized bureaucratically and grounded in class. Special commissions that included doctors and representatives of women's organizations reviewed applications and granted the priority access to free abortions to women from the working class and in social need, while requiring economically better-off female patients to pay for the procedure. Although disagreements continued in the medical literature (Gens 1925), the demand for legal abortions quickly grew to become a widespread practice and new normality for younger generations of Soviet women well before the reversal of the decision and a renewed ban on abortions in 1936. During the 15 years when this social norm remained unique to the Soviet Union, it enabled an intellectual environment conducive to innovative biological and medical experimentation that undermined traditional bio-social boundaries and gender roles, while also transgressing cultural, and sometimes traditional moral, taboos.

Vera Danchakova: From Stem Cells to the Developmental Plasticity of Sex

In March 1931 the new director of the Institute of Experimental Morphogenesis in Moscow, Rafail Belkin, summarized the research plans designed by his predecessor, Vera Danchakova:

> The main goal of the Institute's research was to give humans a possibility to change their nature… through a biological method, in order to achieve a higher development of the nervous system, especially the brain, in the process of embryological development and at the expense of some other tissues.
>
> (Belkin 1931: 19)

Though Belkin may have rhetorically exaggerated the intentions, Danchakova (born Vera Mikhailovna Grigorevskaia in 1879) conducted groundbreaking investigations on blood stem cells and the development of embryonic tissues without, however, receiving a well-deserved academic recognition (see Figure 4.3). Her entire scientific career developed in transit, from one country to another and from one short-term, insecure position to another one, repeatedly being pushed to the margins. Like many women, she endured discrimination

Figure 4.3 Vera Danchakova at her desk at the Imperial Moscow University, 1908. *The Graphic*, Saturday 20 June 1908 Vol. LXXVII, No. 2012, 28. Public domain.

in academia, suffered from political instabilities of the time, and also because of exceptional originality, unconventionality of her research.

Danchakova's autobiography (1931a) describes her studying first at the Pedagogical Institute in St. Petersburg and then as medicine and biology student at the University of Lausanne, Switzerland, the country that since the 1860s provided educational opportunities for many Russian women. She then worked in Russia as a medical pathologist and in 1907 defended her MD in histology at the St. Petersburg Military-Medical Academy (Danchakoff 1907). Shortly thereafter, at the start of her academic career at Moscow University, Danchakova made her first major discovery by describing the existence of what are now called blood stem cells (Danchakoff 1908, 1909). Simultaneously and independently, Alexander Maksimov, professor of histology in St. Petersburg, made a similar breakthrough (Maximov 1908/1909). In the literature, Danchakova was often referred to as a student of Maksimov, which downplayed the originality and independence of her own investigations.[3] In the atmosphere of political reaction following the defeated 1905 revolution, the conservative Ministry of

Education refused to confirm Danchakova's appointment to a regular university position. Discrimination that she experienced within the Russian academic system motivated her to look for an academic career abroad, first in Germany, and later in the United States, at Woods Hole, at the Rockefeller Institute for Medical Research, at the Wistar Institute, and eventually, in the early 1920s, at Columbia University.

Danchakova's interpretation of stem cells anticipated today's views in some important respects. She understood them as undifferentiated precursors that continue to exist in adult tissues and, in certain situations when needed, or under the influence of certain stimuli, have the capacity of developing into a variety of directions, producing differently specialized blood cells. Somewhat later she also proposed the existence of similar stem cells for other tissues. Her subsequent lifelong research primarily focused on investigating experimental possibilities to influence, modify, direct, or channel the development of stem cells and tissues, and on the importance of stem cells for embryology. While in the United States, Danchakova started experiments with "heteroplastic transplantations". She used the allantoic cavity of chicken eggs as a medium to grow embryos, transplanted stem cells, and tissues of other species (Danchakoff 1924). Economic and logistical constraints on these investigations came from the limited availability of embryos, especially from large organisms. It appears that the existence of abortion clinics, and thus logistical possibilities to use human embryos for biological experimentation, provided the main motivation for Danchakova's transfer of her experimental program to the Soviet Union. In 1926 she returned to Moscow and was elected a full member to the Timiryazev Scientific-Research Institute, one of the main experimental institutions supported by the People's Commissariat of Enlightenment (Fando 2020: 251). There she reached technoscientific leadership by founding and directing for five years the Laboratory of Experimental Morphogenesis which in 1931 was further reorganized into a separate Institute.[4]

By early 1929, Danchakova succeeded in growing various human tissues in chicken embryos and submitted a paper on the successful *in vitro* cultivation of an embryonic human heart (Danchakoff and Gagarin 1929). Her laboratory received human embryos from Moscow maternity homes and negotiated with the Commissariat of Public Health for a formalized permanent arrangement with an abortion clinic. It was somewhat more difficult to ensure a year-round supply of appropriately fertilized chicken eggs, but by the end of 1927, this problem was also solved by establishing a farm of Leghorn chickens imported from the United States. Danchakova's main problems appeared to be bureaucratic. She either lost initial patrons in Soviet government or did not manage to maintain good relations with them[5] and complained about the lack of support for her laboratory from other colleagues in the Institute (Danchakoff 1928), who saw her as an arrogant and demanding foreigner (she did have a US passport).

By 1931, Danchakova lost administrative control of her Moscow laboratory and with it, the possibility to experiment on human embryos. Her new

projects focused on sex transformations in the embryo and the possibility of manipulating it toward the development of either male or female sexual organs. She could still work in the USSR until 1933, when she was refused a Soviet visa (Fando 2020), and then at several universities in Eastern and Central Europe, survived the war in countries that mostly came under the control of Nazi Germany, and after another brief postwar stay in the USSR, by 1950 ended up back in Lausanne, in neutral Switzerland. Despite all these political troubles and the lack of a permanent, secure position, Danchakova remained a productive researcher throughout.

Her pathbreaking investigations involved new possibilities for experimentation with human embryos resulting from political decisions such as the removal of the ban on abortions and other restrictions. No less important were the cultural changes in understanding gender relations encouraged by the new technologies of reproduction. Danchakova's interest in the developmental plasticity of embryonic tissues came from an analogy with the multi-potentiality of stem cells and also reflected widespread hopes for the transformability of human nature popularized internationally within the leftist modernist project of the 1920s (Squier 1994). Before or concurrently with her research in the USSR, during the debate over the possibility of socialist eugenics, other Soviet biologists were entertaining various alternatives to the constraints of "hard" Mendelian heredity. The first secretary of the Russian Eugenic Society, Mikhail Volotskoy, envisioned a Lamarckian "proletarian eugenics" (Gaissinovitch 1980: 21), whereas the geneticist Alexander Serebrovsky published a proposal to educate women on how to differentiate love life from procreation and encourage them to choose better genetic material than their husbands for artificial insemination (Babkov 2008). In the theoretical conflict between neo-Lamarckism and genetic determinism, Danchakova subscribed to neither side, but she did oppose the idea of "genetic preformism" popular in the twentieth century, according to which, in Jane Maienschein's words, "development brings differentiation that is unidirectional" (Maienschein 2005). Danchakova's interest in the plasticity of the process of embryonic development positioned her research in the broad tradition of developmental biology, which Evelyn Fox Keller (1997) described as a specifically feminist approach.

Politically, Danchakova does not appear to have supported the Bolsheviks, but she strongly endorsed their goals of gender equality, in particular the attempts to adopt new legislation on marriage that would not only proclaim equality between men and women in words but also de-facto compensate for the "actual conditions of economic inequality" and for women carrying "the physiological burden" (Danchakoff 1927: 188). Her idea of the embryo's pluripotency, or the possibility of transforming the direction of embryonic development, materialized further in her 1930s research on the lability of expression of sexual characteristics. By injecting newly available "histogenetic substances" (chemically purified male and female hormones) she was able to form rudimentary sexual organs of the opposite sex in the embryos of

mammals and birds and to modify the sexual behavior of grownup organisms (Danchakoff 1938a, 1938b). In her interpretation, sex-changing experiments contradicted the then-prevalent chromosomal theory of sex determination.

They also contradicted the dominant, much more conservative, ideological trends of the 1930s. The window of opportunity for taboo-breaking biological experimentation that allowed her research in the Soviet Union narrowed significantly after 1930.[6] Her successor in the Moscow laboratory, Belkin, referred with disapproval, as "risky", to her plan to biologically modify human nature. German Nazism was much more hostile to any blurring of the biological distinction between the sexes, and Danchakova had to deny rhetorically having such an "impudent thought" when in 1941 she published in German her book on development of sex (Danchakoff 1941: IV–V). Politically dogmatic support for the hard-wired chromosomal theory of heredity in the West after WWII, likewise, made her views appear heretical and led to their marginalization. An alternative discourse on women's rights in reproduction, emancipation from male domination, improvement of the human stock, and treatment of infertility came from another post-revolutionary technology, artificial insemination.

Antonina Shorokhova: Artificial Insemination and Women's Rights

Shorokhova's case also reveals a combination of possibilities that became available following the revolution thanks to the new government's scientific policy: the use of new artificial technologies in human reproduction, the removal of earlier, religiously inspired prohibitions, and the inspiring discourse of women's emancipation. Born Antonina Alekseevna Vasil'eva in Saratov in 1881, she enrolled in 1907 at the newly opened St. Petersburg's Women's Medical Institute. Ever since the inception of the powerful movement for women's higher education in Russia ca. 1860, medicine was the subject of prioritized demand among female students. By 1900, despite existing restrictions, about 1,000 women practiced as certified medical doctors in the Russian Empire. Typically, they were not allowed to study alongside male students at state-run medical schools and universities; but could still receive education at some specially established private or community colleges, or abroad (Koblitz 1988). Female doctors were not accepted into state civil service and thus, typically, were not employed at major state hospitals, but they could open private medical practice or work at community-run *zemstvo* clinics. Sometimes, additional exceptions were allowed, which in Shorokhova's case, helped her personal medical career: the field of gynecology, in particular, was traditionally more open for female practitioners (see Figure 4.4). Also, in a few cases, the Russian Imperial state agreed to employ female doctors in areas with indigenous Muslim populations in order to provide service to female patients who could otherwise be reluctant or not allowed by their families to see a male medical official.

Figure 4.4 Professor N.I. Rachinsky with students at the Department of Midwifery and Gynecology, Women's Medical Institute, St. Petersburg, ca. 1904–1908. Central State Archive of Film and Photo Documents in St. Petersburg. Public domain.

Having worked for several years at a provincial *zemstvo* clinic in Tula, in 1916 Shorokhova moved to Tashkent, the Empire's main outpost in Central Asia, where her husband, military doctor and pathologist Stefan Shorokhov, had received a new appointment. The same year she organized the first gynecological service at the city's hospital, located in the "new town" area (Shorokhova 1970: 7). Typical for a colonial city, Tashkent built a modern European-style settlement for its Christian population, adjacent to the existing "old town" center (Sahadeo 2010). The gynecological department quickly filled up with Russian patients, but it took some time and effort, recalled Shorokhova, to earn the trust of local families so they would bring their young women to a "European" clinic for help in childbirth. If a Muslim family was reluctant, Shorokhova visited patients in Tashkent's "old town", where in December 1916 she performed her first Cesarean section on an Uzbek woman and saved the mother's and the child's lives. Horrified by the lack of gynecological services and "barbaric" traditional practices, she saw her main goal as establishing a scientific, "European" gynecology for women in Tashkent of all faiths and ethnicities (Shorokhova 1970; Shadmanova 2017).

These personal desires of hers coincided with the program of the new, post-revolutionary Soviet state toward a modernizing, anti-racist, and anti-colonial nation-building process in Central Asia, especially after the establishment of

the Uzbek Soviet Socialist Republic in 1924. The Revolution of 1917 also removed all formal discriminatory restrictions on women's education and careers. Within two decades, Soviet medicine became a majority-female profession. The glass ceiling and other informal inequities persisted for much longer, but by the late 1930s, some individual women were rising to the very top of the academic hierarchy in the Soviet medical sciences (Dolgova and Streltsova 2019). In 1923, Shorokhova defended her doctoral dissertation at the newly established Central Asian University in Tashkent. In 1930, she helped organize the first specialized gynecological hospital in Central Asia and, in 1933, became the second woman in the Soviet Union to be awarded the title of professor of gynecology. Until she retired in 1951 at the age of 70, Shorokhova spearheaded the establishment of the field of professional gynecology in Uzbekistan. Altogether, in 54 years of service, she performed more than 32 thousand serious operations and received high official recognition for her work. Shorokhova died in Tashkent in 1979 aged 98, and her personal papers are preserved in the Central State Archive of Scientific, Technical and Medical Documentation of the now-independent Republic of Uzbekistan (Shadmanova 2015).

As part of her job, and in accordance with official Soviet policies, Shorokhova administered abortions. Her main ethical and research interests, however, were directed toward curing infertility and establishing women's rights to motherhood. Already in 1917, she commenced experiments with artificial insemination in the hopes of alleviating "women's misfortunes" of not being able to have children (Shorokhova 1923: 55). By that time, artificial insemination had been developed as a reproductive technology and used primarily for large, domesticated animals, especially horses (Ivanov 1922; Rossiianov 2002). One of the top international experts and inventors in the field, Professor Ilya Ivanov, headed a laboratory in St. Petersburg, where Shorokhova learned the technique in 1911. Obviously, she was already then thinking about applying it to women, despite the existing restrictions. Shorokhova cited Ivanov's and her own experiments to argue that the method of artificial insemination was safe and efficient also for humans, capable of producing normal and healthy offspring and helping the cause of women's liberation, not only as a way to treat infertility but as a possible substitute for sexual intercourse as such.

In her first publication (1923: 68), Shorokhova called "the desire to have children a natural, inalienable right of every woman", which could be ensured with the sperm of an unrelated, anonymous donor, outside of marriage, and without any need to enter into a relationship with male partner. The following year, speaking at the sixth All-Union Congress of Gynecology and Midwifery, she again discussed this right and asked rhetorically, "is there any reason to refuse artificial insemination to women who want to have babies without intercourse?" (Shorokhova 1925: 420). She mentioned female patients who wanted her professional help in getting pregnant

while avoiding intimacy with men. "The happiness of motherhood", she complained, "is often acquired by women at a very high price, the loss of personal freedom". In revolutionary Russia, the first marriage code of 1918 radically liberalized both marriage and divorce, which could now be granted easily and on request of either partner. It also abolished any legal distinction between babies conceived in and outside of a formal marriage, eliminating the category of "illegitimate children" altogether. These legal innovations provided the context and possibility for Shorokhova's discourse on extending the concept of women's emancipation further into the domain of reproductive rights.

A summary of her research published in French described 50 successful cases of human birth achieved via artificial insemination (Shorokhova 1927). A German commentator underscored as an unusual fact that three of her cases were reported to have used the sperm of an anonymous donor (Geppert 1928). But Shorokhova could have additional reasons to resort to a donor's sperm to help her female patients, Russian as well as Uzbek. As a gynecologist, she knew from her research that a couple's infertility was at least as often caused by the male as by the female partner, but that in traditional patriarchal families the blame invariably would be laid on the woman. Her desire to help women avoid such personal tragedies strengthened her resolve to view artificial insemination as a woman's right. She also referred to cases when local men resisted and prevented their spouses, sometimes violently, from attending the Tashkent women's club where they could hear lectures related to female hygiene and health (Shorokhova 1970: 8).[7]

In her publications, Shorokhova mentioned a possible eugenic utility of artificial insemination. Indeed, insemination by a donor's sperm was the key element of proposals for positive eugenics, compatible with socialism, formulated by Serebrovsky in 1929 and by Hermann J. Muller in the 1930s.[8] Socialist eugenicists could use neither the privilege of class nor racial differences as indicators for the quality of genetic material. Serebrovsky did not specify what would qualify as "recommended sperm", whereas Muller metaphorically alluded to intellectual capacities, exclaiming that "many future mothers, liberated from the shackles of religious superstitions, would be proud to mix their own plasm with the plasm of Lenin or Darwin, to give the society a child with their inherited biological qualities" (Babkov 2008: 532, 684). Shorokhova could not be aware of the latter suggestion, but in 1929, she designed a physiological, rather than racial or social, criterion for the eugenic quality of sperm: the agility of spermatozoids, which she measured by observing the speed of movement in a specially designed capillary device (Shorokhova 1929). Even after the 1930 ban on eugenics in the Soviet Union, the simple test on agility, deprived of its eugenic connotations, remained the physiological standard for deciding and choosing which donor sperm could ensure a higher probability of successful conception in artificial insemination.

Legalization of Abortions: The First Hundred Years

An entitlement is perceived most acutely when it is lost, which happened to Soviet women in 1936 with another government decree that re-criminalized abortions except when recommended by doctors on medical grounds. After 15 years of legalized practice, many women took it for granted as an actual right to decide and choose the most appropriate time for conceiving babies, as revealed by many letters they sent to newspapers during the discussion of the proposed new law (Chatterjee 1999; Lapidus 1978: 113). Although the editors preferentially published opinions that supported the government initiative, correspondence received by them reflected strong opposition to the proposed ban and defense of the existing practice. These responses chronologically coincided with high-profile public discussions on the fundamental rights and obligations of men and women as proclaimed in the draft of the new Soviet constitution of 1936. The official and publicly used justification for banning abortions once again invoked the need to protect women's health but reversed the logic of the 1920 decree and lamented the residual medical harm from clinical abortions, rather than from underground, unprofessional practice. The government reverted from earlier libertarian ideals to the promotion of more traditional family values and proclaimed that economic hardships that made abortions unavoidable in the 1920s had been resolved by the successes in economic construction of socialism, social welfare, and support for the protection of motherhood and infancy. Later historians have usually interpreted the measure as resulting from concerns about declining fertility and a slower than anticipated population growth, although the demographic crisis in the 1930s, caused by Stalinist collectivization and urbanization, was not as catastrophic as in 1920.

The window of opportunity during which abortions were legal defined the period of weakening of many traditional restrictions in family and gender practices and of experimental openness for some previously unimaginable investigations in reproductive biology. Our analysis of these developments helped reveal the changing roles, possibilities, and limitations for women in the cultural transformations of the 1920s, both as objects of social and technological control and also increasingly as agents of science and of their own emancipation. For example, in 1929, when male biologists sought volunteers for artificial insemination with the sperm of an orangutan, they looked for ideologically committed and sexually liberated women, without considering, however, what possible moral burden and consequences their experimental subjects would have to struggle with (Rossiianov 2002). In Danchakova's experiments, female donors of embryos remained practically invisible. In any case, her research did not exert much influence on the already widespread practice of abortion. Her publications, while generally supportive of women's social and sexual emancipation and experimenting with the transformability of sex, took abortions for granted, as an existing norm. Combined with interest in "positive eugenics" (Adams 1990), this encouraged her scientific

investigations aimed at a radical biological transformation of human beings, such as the use of fetal organs and tissues in experiments on directional modification of embryological development.

Shorokhova's experiments were designed to develop a new practice of artificial insemination, complementary to existing abortions, which she saw as a liberating technology for women to have babies independently or outside of sexual relations with men. These ideas were possibly inspired by early Russian feminists' speculations regarding the separation of procreation from sex and the possibilities of asexual reproduction (Kochetkova 1915). When male eugenicists, such as Serebrovsky or Muller, discussed experiments on artificial insemination, they envisioned a plan in which the experts—geneticists—would have the main authority to select the eugenically appropriate sperm. To Shorokhova, the relatively simple and available technique of artificial insemination opened a way toward empowering women with control over their own reproductive options and criteria, including the choice of donor's sperm.

By 1931, eugenics was declared ideologically unacceptable and effectively censored in the Soviet Union. Even before the Nazis came to power in Germany and enacted their eugenic legislation, Soviet authors had diagnosed the hegemonic American and European eugenical movements as pseudoscientific, irredeemably built upon racist or class prejudices, while pretending to naturalize and legitimize the latter as biological, hereditary hierarchies. Thereafter, the official Soviet discourse proclaimed that the main problems of modern societies had social rather than biological causes and rejected discriminatory racial hygiene in favor of an inclusive social hygiene. But the 1930s international swing to the right in cultural norms and policies had its counterpart in Soviet conditions, too, usually referred to as the "Great Retreat", the extent and causes of which are still a subject of historical debate. A comparison and rivalry with the fascist movement, whose international appeal and ability to attract and mobilize masses were then growing much faster than for its communist enemy, can help to sort out the complex, layered structure of Soviet ideological adaptations during that decade. On some issues of principled ideological and political importance for their project, Soviet spokesmen continued expressing, openly and vehemently, their absolute and categorical opposition to fascism. With regard to women and reproduction, this concerned the wholesale rejection of eugenics, racial hierarchies, and biological reductionism, and insistence on women's equal rights in education, social and public spheres. On other issues deemed less ideologically crucial, the USSR tacitly or not so tacitly retreated from revolutionary radicalism toward what could be characterized as the traditional cultural mainstream of the era. This category included various aspects of gender relations and family life, which had played a much less central role for Soviet ideology. The ensuing return to more conservative patterns and international norms of the time brought about a return to stricter rules for marriage and divorce, endorsement of "family values", parental authority, sexual Puritanism, and recriminalization of male homosexuality and of abortions.

These trends largely continued for the rest of Stalin's years (Nakachi 2008) and meant a major reduction of expectations for the earlier project of gender equality formulated by Kollontai and her followers. Kollontai became mostly silent in public throughout these years, retreating to her quiet diplomatic duties. The window also closed, for the most part, on pioneering and often risky lines of experimentation which were redefining and violating the traditional demarcation between sexes, between animals and humans, and between what was considered "natural", and therefore normal and moral, and "artificial", and possibly dangerous in the area of human reproduction. Yet, some of the practices did not completely disappear and remained preserved in memory, even if no longer allowed to be exercised or discussed openly. It is hard to tell whether Shorokhova continued to help her patients with artificial insemination, as the Soviet media kept a decades-long silence about the method.[9] Abortions continued to be performed illegally and semi-legally but with much less information available publicly. Many couples who had not bothered to register their relationships during the libertarian period continued to live in de-facto unregistered or open partnerships even after the legal marriage code became much stricter. And Kollontai's earlier publications were not forgotten either.

Abortions were legalized for the second, and final, time in the Soviet Union in 1955. Maria Kovrigina, the minister of public health, and other women who made possible this correction understood the right to abortion as a socialist practice, one of the core Soviet values which she as a young student internalized ca. 1930. For her, restoring this right was part of the general "return to revolutionary and Leninist norms" following the corrupting excesses of Stalin's period (Nakachi 2008; Talaver 2020). This time around, Soviet experience was generally attracting much more attention from the rest of the world. The case of abortions, too, helped trigger a much stronger international following. Several socialist countries in Europe instituted similar legislation almost immediately, and during the rebellious 1960s, the movement for legalizing abortions also spread to Western Europe and North America (Roemer 1967). The second wave of legalization did not bring back eugenics, which had been thoroughly discredited by the Nazi abuses and remained effectively banned in the Soviet Union and elsewhere. But as the abortion reform widened internationally, it was accompanied by a renewed and much stronger discourse on women's rights and by possibilities for more advanced, if not necessarily bolder, experimentation with human reproduction.

Notes

1 A generation later, Kollontai's main ideas would form the core of the "second wave" of Western feminism. In her own time, however, she did not call herself a "feminist", but used the term dismissively as applying only to the much less radical "bourgeois feminism" of the early twentieth century. She viewed her own communist project of women's emancipation as a much bolder revolution in gender norms and also an inseparable part of class struggle, realizable only together

with—not in competition with—men, as a mutual liberation in the process of building socialism (Kollontai 1977; Stites 1978).

2 The term "evil" in the text by medical (atheistic) authorities should be understood as anti-social, i.e., "social evil" damaging the interests of society. See a commentary on the logic of the decree by Vera Lebedeva, head of the Department on the Protection of Maternity and Infancy (Lebedeva 1927: 88–89).

3 Danchakova (or Danchakoff as she spelled her name in international scientific publications) denied that she was a student of Maksimov. The complicated history of the discovery and rediscovery, and reinterpretations of stem cells, and the contributions from several researchers, are still awaiting detailed investigation.

4 Gender equality in higher education advanced rapidly in 1920's revolutionary Russia, including complete co-education at the undergraduate level and efforts to increase the number of female graduate students. At professorial positions, women were still rare, but in 1925, the physiologist Lina Shtern also returned to Russia and by 1939 would become the first woman elected to the highest academic rank of full member of the Soviet Academy of Sciences.

5 Her main patron appears to have been the mathematician and astronomer Vladimir Kostitsyn, who directed the Scientific Directorate at the People's Commissariat of Enlightenment and had invited her to the Soviet Union but left the country in 1928 (Kostitsyn 2017).

6 See also a similar reinstatement of cultural taboos in the case of Ilya Ivanov's cross-breeding experiments (Rossiianov 2002).

7 She alluded to cases related or similar to those described in (Northrop 2003; Kamp 2011) as violent resistance to the unveiling campaign initiated by radical female activists in the late 1920s.

8 On the history of Soviet eugenics see (Adams 1990; Babkov 2008).

9 There seem to be no Soviet publications on artificial insemination for families between (Imerlishvili 1933) and (Vozvrashchenie 1969). The USSR health ministry officially approved the practice only in 1981 (Parashchuk 1987).

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