



**ANYA BERNSTEIN**  
Harvard University

# Freeze, die, come to life:

## The many paths to immortality in post-Soviet Russia

### ABSTRACT

Through practices such as cryonics and plans to build robotic bodies for future “consciousness transfer,” the Russian transhumanist movement has engendered competing practices of immortality as well as ontological debates over the immortal body and person. Drawing on an ethnography of these practices and plans, I explore controversies around religion and secularism within the movement as well as the conflict between transhumanists and the Russian Orthodox Church. I argue that the core issues in debates over the role of religion vis-à-vis immortality derive from diverse assumptions being made about “the human,” which—from prerevolutionary esoteric futurist movements through the Soviet secularist project and into the present day—has been and remains a profoundly plastic project. [*body, immortality, religion, death, transhumanism, cryonics, postsocialism, Russia*]

“Just look at that enormous line,” said Mikhail Batin. “Our competitors for eternal life.”<sup>1</sup> Batin is director of the Moscow-based Science for Life Extension Foundation. He was pointing at a long line of worshippers across the river from his stylish office in the former Red October chocolate factory, who were waiting to get into the Cathedral of Christ the Savior, one of the largest Orthodox churches in the world. “But what do you expect? They have a 2,000-year-old brand, billions of loyal consumers, efficient sales offices, connections in the government. Hey, people! Why don’t you come to us instead?” Turning to me, he summarized,

All they have is good marketing. There is no guarantee of quality, and you won’t be able to drop the service if something goes wrong. Our competitors have been caught red-handed—many times—scamming their customers. But here we are honest and don’t make things up. The earth rotates around the sun, there is nothing after death, living is good and dying is bad. Just think, maybe you would like to just stay alive, rather than justify death with these religious fantasies?

The addressees of Batin’s tirade were pilgrims—women with their heads covered, men holding children in arms, the sick and disabled faithful—who, on July 19, 2013, spent nearly seven hours standing in line to venerate the cross of St. Andrew the Apostle, a relic brought from the Greek city of Patras to the Cathedral of Christ the Savior in celebration of the 1,025th anniversary of the baptism of Russia. The cathedral, demolished by Joseph Stalin in the 1930s then rebuilt in the 1990s, had made news as the setting of the infamous “punk prayer” unleashed in 2012 by the feminist collective Pussy Riot beseeching the Mother of God to oust then prime minister Vladimir Putin from power. The two-year prison sentences the women received for their efforts were controversial in the extreme, making secularism among the most hotly debated subjects in Russia. In the aftermath of the Pussy Riot trial, there have been roundtables, TV shows, special issues of popular magazines, and endless private debates in cramped Russian kitchens devoted to considering the place of religion in public life and whether Russia is (or should be) a secular or a religious state. Among liberal commentators, both domestic and abroad, it has become customary to

consider contemporary Russia a state in which secularism is in decline. It is to these debates that Batin, along with fellow members of a loose movement of people calling themselves “transhumanists,” aspire to contribute.

Transhumanism is the name of an international intellectual and cultural movement that aims to transform human nature by developing the tools to accomplish a “radical upgrade” of the human being. In Russia the movement is represented by diverse groups focused on promoting life extension and ultimately achieving immortality through such technologies as cryonics (freezing dead bodies in liquid nitrogen in hopes of a future revival) and “mind uploading” or “mind transfer,” the hypothetical possibility of separating the mind from the biological brain and “copying” it to “nonbiological platforms.” They are also active politically, lobbying the government for better funding of scientific research on aging and life extension. Anthropologists have generally viewed transhumanism (cryonics, in particular) as a uniquely U.S. preoccupation, casting cryonics as a form of capitalist investment in the future (Romain 2010) that produces a shift in temporalities best understood in terms of a secular eschatology (Farman 2012). Yet, in Russia, such secular eschatologies have a much longer history, going back to 19th-century techno-utopias. Nikolai Fedorov (1828–1903), considered the founder of the intellectual tradition that later became known as Russian Cosmism, called for the technological resurrection of the dead (as well as for the colonization of space to accommodate this new population, genetic engineering, the creation of prosthetic organs, and control over nature), anticipating many themes later advanced by such diverse turn-of-the-century intellectuals as the rocket scientist Konstantin Tsiolkovsky, biochemist and geologist Vladimir Vernadsky, physician and revolutionary Alexander Bogdanov, futurist poet Vladimir Mayakovsky, and many others. The human body must be deliberately redesigned to stop the “extreme anatomical and physiological disharmony” resulting in “wearing out of organs and tissues,” wrote the revolutionary Marxist Leon Trotsky in 1924 (2005:207). “Mortals of all countries, unite!” demanded a 1914 manifesto by Fedorov’s followers (Gorskii and Brikhnichev 1914:8; see also Rosenthal 1997:27). This constellation of revolutionary, scientific, and religious imaginaries eventually led to the preservation of the body of Vladimir Lenin (among others), which some believed had as its ultimate goal his future reanimation.<sup>2</sup>

From the embalmed body of Lenin to the 41 bodies frozen since the founding of the first cryonics company in postsocialist Russia in 2006,<sup>3</sup> issues bearing on the corporeal as such have been central to sometimes overlapping discussions of secularism and immortality. Since most transhumanists believe in the inevitability of physical immortality, as opposed to the immortality of the soul foreseen in some religions, a key debate in Russian transhumanist circles revolves around what constitutes an

immortal body and how exactly it is to be achieved. While some believe that immortality will be gained exclusively by means of cutting-edge secular science, others creatively blend science with transcendental technologies of the body drawn from various religions. Indeed, many wonder just how “secular” the immortal body can be, as accepting this modern vision presupposes a considerable leap of faith, not unlike that demanded by the religious traditions many transhumanists oppose. Here I suggest that the significance of the debate about immortality launched by transhumanists reaches beyond techno-utopian imaginaries, as it exhibits many of the same tensions inhering in what is conventionally understood as the contest between “the religious” and “the secular” that have so animated public life in Russia since the Soviet collapse.

In his work on secularism, Talal Asad starts from the assumption that “the secular” itself—a variety of practices, concepts, and sensibilities formed over time—precedes the political doctrine calling for the separation of church and state. The secular, Asad says, is such a part of modern life that it has become something like the water we swim in: hard to grasp directly. He proposes studying secularism through its “shadows,” those practices and discourses that indirectly challenge secular imaginaries, such as notions of myth and “passionate” agency and attitudes toward pain (Asad 2003). If, in *Formations of the Secular*, Asad examined embodied practices running against the grain of secular rationalism, recently he has taken up the connection between secularism and the body more directly, in response to Charles Hirschkind, who provocatively asks whether there is such a thing as a “secular body.” Indeed, while the religious body has become the subject of a voluminous academic literature, defining what exactly a secular body might be has proven elusive for transhumanists and anthropologists alike. Asad (2011) and Hirschkind (2011) speculate about whether distinct sensibilities, affects, and embodied dispositions might distinguish the secular body and whether answering this question might have relevance for secularism as a political system. Continuing this line of inquiry, but focusing on the contradictions within “the secular,” Abou Farman (2013) demonstrates how cryopreserved bodies in the United States are produced through the secular institutions of law and medicine yet are often in conflict with them. Most U.S. transhumanists agree that secularism is a prerequisite of scientific progress. They are, in Farman’s expression, “scientifically oriented secularists.” In post-Soviet Russia, by contrast, secularism has become a subject of heated debate within the transhumanist community, just as it has in broader publics.

In this article, I consider competing practices of immortality amidst robust contemporary debates over fundamental understandings of bodies and persons in Russia today. In this context, struggles over secularism and religious life hinge now, as they long have, on defining “the

human.” As the briefest of historical surveys show, from prerevolutionary Russian esoteric futurist movements through the Soviet emancipatory secularist project and into the present day, “the human” has been and remains a profoundly plastic project. Contemporary Russian transhumanists thus draw on deep conceptual programs born out of both revolution and socialism as well as more recent postsocialist transformations. Using transhumanist perspectives as a microcosm for the larger Russian debates, I examine the attitudes, concepts, and sensibilities underlying emergent notions of the human, showing how shifts in the meaning of that construct are crucial for people’s understandings of the distinction between the religious and the secular.

Transhumanists do not always agree about what constitutes us as human beings, with views on the mind–body problem ranging from idealism to materialism and from monism to dualism. What they do share is a deep belief in “active evolution,” wherein being human is to be in a state of permanent nonteleological transition and to be able to shape and direct one’s own evolution.<sup>4</sup> Perhaps not surprisingly, opposition to this view has come from Russian Orthodox circles. As the Soviet secular utopia has been progressively dismantled since the 1980s, the Russian Orthodox Church has entered the public arena with its own vision of utopian collectivity and related biopolitical agenda. Increasingly finding its mission in resisting what it sees as the importation from the West of alien notions of the human, the church has taken on what it calls the “challenge of transhumanism” (*vyzov transgumanizma*), actively opposing transhumanist ideas and practices for the same reasons it opposes homosexuality, abortion, and euthanasia—as practices that interfere with the sovereignty of God by tampering with life itself and by encouraging ideas of human redesign and self-mastery.

Given the growing political and moral influence of the Orthodox Church in Putin’s Russia, ontological questions of what constitutes the human, how the mind is connected to the body, and whether immortality is desirable gain political traction beyond the domain of speculative philosophy. In Russia, definitions of the human become central to the ongoing renegotiation of perceived boundaries between the secular and the religious in the wake of the collapse of the world’s largest atheist state. Simultaneously, with Russian transhumanists producing novel theories of the relationship between body and person, human and time, and technology and biology, it becomes clear that the stakes are not just Russian but global, amounting to nothing less than the redefinition of the human condition.

### **KrioRus: Bodies in the deep freeze**

“In 2005 it was nearly impossible to find articles in the media on radical life extension, but now it’s quite common.

Everyone is talking about it.” So I was told by Valerija Pride, director of KrioRus, a Russian cryonics company founded in 2006.<sup>5</sup> “Eight years ago we launched a huge PR campaign. Our ideas were really well received on completely different levels—from the liberal media to high-level government officials. Even the pro-Putin youth movement Nashi caught the bug.” KrioRus occupies a modest two-room apartment on the ground floor of an attractive building in Moscow’s historic center. The front room offers cozy office space, and in the back a loft accommodates sleeping (not, employees assured me, dead) comrades-in-arms. When I arrived, I was greeted by Zhenia, a young volunteer in his early twenties. It was my first meeting with Valerija,<sup>6</sup> and she was running late. To entertain me while I waited, Zhenia showed me items from the company’s online shop, called *Tovary iz budushchego* (Goods from the Future).<sup>7</sup> Among the items he highlighted were a 3D printer, which printed little blocks and other shapes, a bottle with a built-in water purifier, and a small cardboard container, like a juice carton, containing a liquid meal replacement.

Valerija arrived, bubbling over with apologies for being late. She was a thin, energetic woman in her fifties who spoke very fast. “Last month we froze four people,” she said. “Four people in one month! I wouldn’t be surprised if it was a world record. That means society is ready for this. Maybe because we’re used to grand projects—the Soviet Union, the exploration of space.<sup>8</sup> Our scientist Tsiolkovsky said we should live for a thousand years. Already in the 1970s the famous Soviet gerontologist Lev Komarov organized symposiums on artificial life extension. However,” she admonished, shaking her finger, “gerontologists have different goals than ours. They only study aging, while we are determined to fight it.”

I found myself pondering the famous line from Karl Marx about merely understanding the world as opposed to changing it, recognizing the very quintessence of the transhumanist worldview in Valerija’s self-definition. It is possible to radically transform human nature, she was saying, and the place to start is the human body:

Our bodies are incredibly imperfect. We get old, we get sick. Even if our health is great, we can’t see well at night, we can’t fly . . . . To put it briefly, things are pretty dire. I’m not satisfied. I want to be able to swim under water without having to breathe. But I’m unable to do this. So I want an upgrade. Upgrade my health. Upgrade my intellect.

And transhumanists have other long-term visionary projects, beyond upgrading one’s body. They are devoted to exploring space, peopling other planets, and even “upgrading” animals to the level of rational conscious beings. Yet perhaps the greatest goal of all, shared by most transhumanists, is radical life extension and, ultimately,

immortality. Death, to them, is the single greatest obstacle to transforming the human condition. They call those who consider death inevitable “deathists” (*smertniki*)—a term uttered with contempt. Says Mikhail Batin, “I think life is a colossal tragedy. Everything goes well—people enjoy life, study, get married, get divorced, have aspirations, build careers . . . . And then they start rotting alive. They suffer enormously, their vital organs fail, they become less and less intelligent, and they die in pain. And this happens over and over.” If in some worldviews, both religious and secular, death gives human life meaning, in the opinion of transhumanists, death renders life hopelessly meaningless because it effectively annuls the continuity of human achievement. According to Batin, death should be considered a curable disease, similar to cancer.<sup>9</sup>

Transhumanists like Valerija and Mikhail are not willing to wait for scientists to find the time and funding to work on a cure for death. They declare cryonics—the freezing of recently deceased bodies in liquid nitrogen—the best choice in a bad situation. Cryonicists’ reasoning recalls Pascal’s wager. If you sign a contract with us, they say, and we cryonize your body, and it doesn’t work, you die. If you don’t sign a contract with us and don’t cryonize your body, you die anyway. Choose cryonics—that is your only chance to live.

Cryonicists have a distinctly relativist understanding of death. Indeed, their take intersects with anthropological investigations into sociocultural constructions of death, both inside and outside biomedical regimes, but especially within them, as the medical community is constantly pressured by new technologies to revise its own definition of death (Kaufman and Morgan 2005; Lock 2001). Like anthropologists, Russian cryonicists regard the medical definition as a product of particular histories and as subject to change. They regard death not as a single event but as a three-stage process: Stage 1: The body ceases to function as a whole. This, cryonicists say, is what we normally understand as death, in the sense inherited from past medical knowledge and beliefs. During Stage 1 many organs and cells continue to work because their structures have not yet been destroyed. Stage 2: The body is partially destroyed. Stage 3: The full, irreversible physical decomposition of the body sets in. It is in this latter sense, say cryonicists, that the term *dead* will be understood by the medicine of the future, and this is how they claim to view death now. Once technologies have been invented that offer a “gut renovation” (*kapital’nyi remont*) of the body, full restoration at Stage 2 becomes a possibility. Characteristically, cryonicists do not refer to frozen people as “dead” but as “cryo-patients” (*kriopatsient*). They treat them as if they were alive, waiting in suspended animation to be reawakened. In Valerija’s summary, people who dismiss cryonics by saying that frozen people are dead simply misunderstand the term: “That argument is based on a long outdated understanding of death as a single event. What does it mean when we say, ‘He died’?

Does it mean the doctor signed off on the death? But who is the doctor? Is he God? The process of death is slow. What is the exact moment of death?”

Aside from KrioRus, the only other cryonics companies that boast storage facilities are in the United States, the Cryonics Institute in Michigan and Alcor in Arizona. KrioRus, Valerija proudly points out, is “the first cryonics company in Eurasia.” It offers contracts for two types of cryopreservation, one that freezes the whole body and one that preserves only the brain (*neirosokhranenie*, or neuropreservation). The second option is attractive for people on a budget (it costs \$10,000 as opposed to \$30,000 for the whole body), but it is also considered by orthodox cryonicists to be more advanced ideologically. Since cryonicists believe that personality is located in the brain, the body becomes a secondary issue. Personality, in this view, is constituted by long-term memories recorded in the cerebral cortex, and if these memories can be preserved, it does not matter what kind of body might be attached to the brain in the future. Cryonicists acknowledge that separating the head from the body is a radical, iconoclastic step, even for fairly advanced adepts. But it also offers a certain compromise in regard to traditional burial practices.

While based on the prior agreement of the deceased, cryonics contracts tend to be fulfilled, for obvious reasons, by relatives, many of whom happen to be active in the transhumanist movement. In 2008, Valerija cryonized her mother, who died of peritonitis, and her assistant Andrei cryonized his father, who succumbed to hepatitis C. Andrei opted for brain-only preservation, because other relatives insisted on a traditional Orthodox burial. The brain went one place for cryopreservation, while the body was buried in a cemetery. To all appearances the body was whole, and the priest performing the ceremony was unaware that his client’s brain had been removed to be frozen.<sup>10</sup>

“We don’t really have a problem with religious people,” said Valerija. “We personally do not believe in the existence of a soul. But if patients want to throw some Orthodox icons in the cryo-chamber, we are absolutely fine with it.” People taking the opposing view are not always so even tempered. When controversy erupted over the KrioRus storage facility for cryo-patients in a village near Moscow, cryonics itself came under attack. Angry villagers—who disparaged the storage facility, located on private property, as “corpse storage” (*trupokhranilishche*)—wrote irate letters to the police, demanding that it be shut down. According to the Orthodox Christian worldview, they argued, the bodies are nothing more than corpses that have long since been abandoned by their souls—as in the popular Orthodox belief, it takes only 40 days for the soul to “fly off” (*otletet*) from the body. They demanded immediate burial of the bodies stored in the cryonics facility so near their homes, expressing fears that they would soon be invaded by zombies, animated corpses, or the soulless living dead.<sup>11</sup>

Orthodox villagers are not the only ones opposed to cryonics. Major criticism has also come from within the Russian transhumanist community itself. The most prominent critic, interestingly enough, is the person known to international audiences as the “face” of Russian transhumanism: Dmitry Itskov, a former Russian media tycoon who has recently devoted his life to searching for immortality. While cryonicists have created a prototypical secular body, devoid of a soul and with consciousness confined to brain chemistry, Itskov and his transhumanist circle take a distinctly more transcendental approach. They share with cryonicists the problem of how to overcome the mortal body, but they want to preserve more than the body, something more akin to a soul. Itskov attracted a lot of publicity in the United States for organizing and funding the Global Futures 2045 congress, held in June 2013 in New York City. Among a long list of distinguished participants were scientists from fields like neuroprosthetics and molecular genetics, as well as robotics designers, futurists, and visionaries. But nonscientists also attended and included such diverse personalities as U.S. scholar and Buddhist Robert Thurman, Russian yoga master Swami Vishnudevananda, Tibetan incarnate lama Phakya Rinpoche, and Lazar Puhalo, a retired hierarch of the Russian Orthodox Church in America.

### The Avatar Project

Two weeks after the congress in New York, I sought out Dmitry Itskov in Moscow. “You are going to write about *Russian* transhumanists?” he asked, in disbelief that someone would come from the United States—in his view, the Mecca of transhumanism—to study the phenomenon in Russia. Itskov’s secluded office was unreachable by public transportation, so he picked me up in his white BMW, with private driver, at a metro stop about 15 minutes away. When we stepped out into the courtyard of the dilapidated Moscow building where he is headquartered, Itskov elaborated on his surprise. “Well, things are very sad in this area here,” he said. “Most adepts are just too materialist to care about anything beyond preserving their biological bodies. Perhaps it’s a legacy of the Soviet period. This is what I’m trying to change.” We rode an old elevator upstairs, passing through a series of steel doors to arrive at his loftlike office with white brick walls and exposed piping, a strikingly contemporary mix of industrial design and Zen-like decor. The office had a railroad layout, with two female employees working in the first two open-plan rooms. A thick glass door separated Itskov’s office at the back. His desk sported a photograph of himself with the Dalai Lama, who, as has been widely reported, recently approved of Itskov’s quest to transfer consciousness into artificial bodies (Itskov 2012).

Itskov is the founder of Immortality, a corporate joint venture that has set itself the goal of creating an artificial body. In 2011 it launched Russia 2045, a sociopolitical

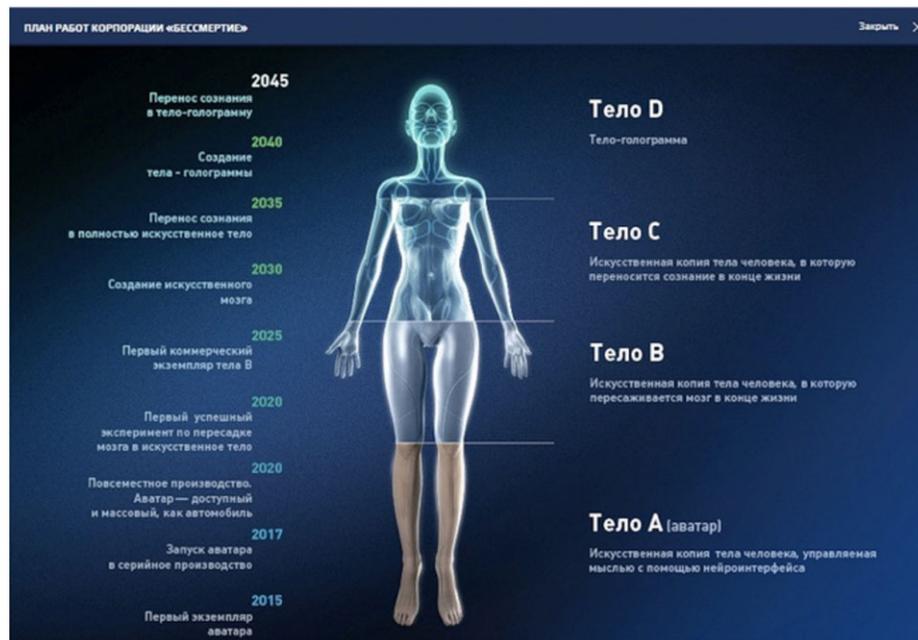
movement designed to promote ideas of radical life extension as well as to lobby the Russian government to adopt the project of building artificial bodies as a unifying “national idea.” The year 2045 is the date by which the movement’s main endeavor, the Avatar Project proper, is to be completed. The idea is to transfer the human brain and mind into a series of progressively changing and improving robotic bodies, first melding man and machine but eventually eliminating the very need for a physical body. The first stage, to be completed by 2020, aims to create Body A, a robotic body controlled through a brain–computer interface, similar to the avatar featured in James Cameron’s popular film of that name. Itskov believes the work leading to Body A is already underway, citing research on brain implants that give disabled people control of robotic limbs or make it possible to spell words and move the cursor on the computer solely by means of thoughts (Segal 2013). The second stage, Body B, to be completed by 2025, culminates in the creation of an artificial body into which a human brain is transplanted at the end of life. Body C (or Rebrain), creates an artificial brain, into which consciousness is transferred at the end life. Body C is scheduled for 2035. The final stage, Body D, slated for completion by 2045, intriguingly suggests dispensing with the physical body altogether in favor of a so-called hologram body, a body that is entirely nonphysical and nontangible (see Figure 1).

In a *New York Times* article on Itskov, appearing perhaps appropriately in the business section, reporter David Segal described what makes Itskov and his project stand out, even among the most visionary scientists:

Most researchers do not aspire to upload our minds to cyborgs; even in this crowd, the concept is a little out there. Academics seem to regard Mr. Itskov as sincere and well-intentioned, and if he wants to play global cheerleader for fields that generally toil in obscurity, fine. Ask participants in the 2045 conference if Mr. Itskov’s dreams could ultimately be realized and you’ll hear everything from lukewarm versions of “maybe” to flat-out enthusiasm. [2013]

More than a few, as Segal notes, believe that, at a minimum, “interest in building Itskovian avatars will give birth to and propel legions of start-ups. Some of these far-flung projects have caught the eyes of angel investors, and one day these enterprises may do for the brain and androids what Silicon Valley did for the Internet and computers” (2013). Nonetheless, it is not money that Itskov is after. As reported in the article, he has already spent \$3 million of his personal funds just for the congress. “I had a midlife crisis at 25,” said Itskov as we settled into his office. He was 32 when we spoke.

I was head of a big media business. I had made a lot of money. I could either continue working, grow my



**Figure 1.** Four bodies of the Avatar Project, which aims at achieving immortality through transferring consciousness into robotic bodies. The project is the vision of Dmitry Itskov, who runs the Moscow-based company Immortality. (Used with permission of the 2045 Initiative.)

business even more, make even more money. Or I could sell my company and do something else. I was so young, but I kept thinking about death, about getting old. I saw my aging body covered with wrinkles and imagined myself at the end of life: the whole of life gone, and I hadn't learned a thing. I tried working less, but then I didn't know what to do with my free time. I thought of becoming a government employee or a politician to be of service to the people. But I realized that you can't change society by changing rules. I pursued the spiritual path, practicing meditation and yoga. I knew of and sympathized somewhat with transhumanist ideas of prolonging the life of the biological body—but their ideas always seemed one-dimensional to me. Then I met some people who told me about practices of consciousness transfer in Buddhist and Vedic traditions. I learned that it's possible to exit one's biological body. I decided I didn't want to devote my life to managing this body. If people become physically immortal without developing consciousness, then anything is permitted. I wanted to devote my life to something that would push people to develop spiritually. That's why I thought about consciousness transfer. If we can manage such a transfer, it will be such a shock for most people. They will understand that they are more than just a biological body.

Despite Itskov's evident mind-body dualism and his sympathetic treatment of spirituality, his proposal for creating artificial bodies inspired the same criticism from the Orthodox Church that it had launched earlier against the

cryonicists. Archpriest Vsevolod Chaplin, spokesman for the Russian Orthodox Church and an influential public figure, declared in June 2013 that the primary threat facing Russia was "the appearance of human bio-robots (*chelovek-biokonstruktor*), people who will fight against people created by God" (Novoshchukin 2013). While it might sound like the archpriest was quoting from the sci-fi television series *Battlestar Galactica*, in Russia the idea of cyborg humans links to more immediate biopolitical fears and social conflicts. Father Chaplin interpreted these "illegitimate fusions" of human and machine (Haraway 1991b:176) as a threat from the "West." They directly undermine Russian moral values, he maintained, which constitute the key national idea. "The West has already accepted same-sex marriages," he went on,

Now it justifies incest and euthanasia. And this is only a beginning. Commentators are already calling for the destruction of the institution of the family. It appears they want to keep the right to be born and live only for certain people, like those who choose their own gender, change their genitals once a week, or enhance their brain by connecting it to the computer. Not allowing man to be turned into a bio-robot should become another national idea for Russia. [Novoshchukin 2013]

With the church riding high on the religious revival in Russia, Itskov might be expected to become a target of its traditionalist conservative rhetoric. The real surprise is the criticism that greeted Itskov's ideas from within the Russian

transhumanist community, among advocates of cryonics in particular. One major disagreement between Itskov and cryonicists bears on their fundamental conceptualizations of body and mind, the basis of their divergent projects of immortality. Cryonicists reject the existence of a soul, identifying the brain as the source of consciousness and personhood. Itskov, perhaps influenced by his study of Asian religions, places an equal or possibly greater value on the development of the mind, as distinct from upgrading the purely physical body. Itskov effectively positions himself as an opponent of cryonics in arguing that what gets interrupted at death is not just bodily existence but experience.

Dmitry Itskov: From the mystical point of view, it is possible that the subtle body . . . [the person's] soul, might have already separated itself from the frozen body. To revive a frozen body, we need to create a new one and search for ways to get the soul back in. If you need to create a new body anyway, why freeze the old one?

Anya Bernstein: So you are not going to get cryonized?

DI: Me? Never. Only if they invent a special cryochamber that puts terminally ill people into a state of anabiosis, a kind of sleep where the body is not destroyed, so that they can wake up in the future and be cured. But right now people just die, and the people who freeze them don't know what will happen to consciousness. Where will it fly off to? How do you get it back into the body? They freeze brains, right? So they think that personality is contained in the brain. They say, if you freeze the brain, everything will be preserved. OK. But then you need to build a body for this brain. So why don't we focus on building this new body first and try to invent the technology of transfer, which we will eventually need anyway?

Most cryonicists are not opposed to the idea of living in robotic bodies like Itskov's Bodies A and B. Although they are in the business of freezing bodies, many cryonicists share with Itskov their nonattachment to their present bodies, their focus being preservation, continuity, and extension of a certain kind of "self." Yet Itskov rejects what he considers his opponents' crude materialism, adopting a more distinctly dualist view. His Avatar Project aims not at physical preservation but at the technology of transferring consciousness (sometimes used interchangeably with "soul").<sup>12</sup> Of all Itskovian bodies, it is Body D, or the Hologram Body, that provokes disapproval on the part of other transhumanists. Criticism from the Orthodox Church hinges on the way artificial bodies secularize and profane the religious body given us by God. Cryonics, perhaps the most radical secularist movement in contemporary Russia, dismisses Itskov's proposed bodies as not being secular *enough*.

"Body D, a body of light, that is our ultimate goal," says Itskov. "The father of our space science, Tsiolkovsky,

also talked about replacing our biological bodies with ones made of pure energy. He called it 'radiant mankind' (*luchistoe chelovechestvo*).<sup>13</sup> So here we have the intersection of Russian Cosmism and spiritual transhumanism with contemporary biotechnologies."

Most Russian transhumanists beg to differ. "Itskov is a crypto-Buddhist, and his ideas are very dangerous," says Mikhail Batin.

We are already entering the era of religious obscurantism (*mrakobesie*) in Russia, plunging us even further into the Middle Ages. Itskov's theory is essentially a religious teaching about attaining a "rainbow body." He's not interested in life extension. Like Buddhists, he wants to "exit" [this life]. . . . It's just that he wants to "exit" it into a computer.

The "rainbow body" (*'ja lus*), which appears in Tibetan Buddhism and Bon, particularly in the Dzogchen teaching, signifies dissolution of the physical body of the adept into light. This dissolution can happen in the miraculous disappearance of the practitioner during meditation, but it is more commonly believed to occur at the time of death.<sup>14</sup> "Yes, we have heard our share of ridiculous tales from Itskov's camp," one transhumanist told me. "There was even one story about a guy who suddenly dissolved into a rainbow, and then everyone else was barely able to gather what remained of him into a paper towel!" My respondent made a circling hand gesture, as if attempting to collect air into a towel, simultaneously shrugging to emphasize the utter ridiculousness of it all.

### Kinship, resurrection, and physiological collectivism

Itskov's mysticism does indeed owe a great deal to Hindu and Buddhist traditions. Rumors have it that Swami Vishnudevananda, a well-known living Russian yoga master, is Itskov's personal guru and might be the originator of some of his transhumanist ideas. But Itskov's mysticism is equally beholden to the Russian-born philosophy of Cosmism and other late Russian and early Soviet techno-utopias. The canonical figure in the origin of the intellectual tradition that later became known as Russian Cosmism was Nikolai Fedorov (1828–1903), an eccentric polymath known as the "Socrates of Moscow." His views have been described as simultaneously Christian, scientific, occult, and socialist. During Fedorov's lifetime, his ideas provoked the interest of well-known Russian thinkers such as Fyodor Dostoyevsky, Leo Tolstoy, and Nikolai Berdyaev. Fedorov's ultimate goal, which he described as the "common task" (*obshchee delo*), is to use technology to overcome death and resurrect everyone who has already died. Anticipating contemporary transhumanism, Fedorov considered death a form of

disease and the circle of birth, disease, and death pointless and humiliating. “Death,” he wrote,

results from being at the mercy of the blind force of nature . . . . Yet we accept this dependence and submit to it . . . . Death can be called real only when all means of restoring life . . . have been tried and have failed . . . . However great the number of the deceased, this cannot be the basis for an incontrovertible acceptance of death because it would entail an abdication of our *filial duty*. [Fedorov 1990:90, 98–99, emphasis added]

Filial duty and kinship are central to Fedorov’s philosophy. He creates a stark opposition between the condition of “kinship,” or *rodstvo* (which he also refers to as “brotherhood,” effectively using these two terms as synonyms), and a condition that is “unbrotherly” (*nebratskoe*) or “unkindred” (*nerodstvennoe*). Unbrotherliness, according to Fedorov, is the ultimate cause of the “unpeaceful state of the world,” while what is needed to restore world peace is the “restoration of kinship.” In his view, the resurrection of ancestors is an act of love and compassion on the part of their descendants, but it is above all an act of filial duty. Each generation will be responsible for resurrecting its parents, a process that will gradually extend to the resurrection of the very first humans. And once death is overcome, there will be no further need for sexual reproduction. Among the alternative modes of reproduction Fedorov (1990:101) mentions is the creation of “the Son from the Father,” invoking the Trinity as an example of nonbiological reproduction. Humanity’s purpose thus becomes acquiring the godlike powers needed to alter life itself.

Resurrection, for Fedorov, is decidedly physical and material, perhaps not surprising in the context of Orthodox Christianity. As in all churches recognizing the Nicene Creed, the resurrection of the body is central to Orthodoxy, with the body transformed in a way that allows it to rejoin the immortal soul. Yet, strikingly, Fedorov barely mentions the soul. His focus on bodily immortality recalls early Christian doctrine postulating the continuity of bodily identity after resurrection.<sup>15</sup> Fedorov envisions the resurrection of ancestors as an expressly physical process, consisting of tracking down, meticulously collecting, and putting back together the smallest of particles that belonged to our dead ancestors. By now these particles are to be found not only on Earth but also scattered in space, where Fedorov hopes humanity will soon be able to travel, both to search for the particles of ancestors and eventually to populate other planets. The early Christian view his ideas most closely resemble bears on the notion of “resurrection as reassemblage,” which held that the resurrected body will consist of a reassemblage of bits or parts (Bynum 1995:35–38). A crucial difference, of course, is that, for Fedorov, this reassemblage will be executed not by God but by humans using science and technology. Yet Fedorov’s universe is not godless. On

the contrary, he sees technological resurrection as part of God’s plan for leading humanity to restore itself to its original, deathless state.

Fedorov’s views of resurrection derive from his understanding of death and the body. He sees death as the decomposition and dispersion of particulate matter. And if particles can be dispersed, they can just as well be put back together. Fedorov denies the finality of death and bodily decomposition on the basis of what he considers strictly materialist criteria, decrying so-called commonsense views on these matters as “childish superstitions”:

Decomposition is regarded as a sign which admits of no further experimentation. However, one should remind them [the skeptics] that decomposition is not a supernatural phenomenon and that the dispersed particles do not scatter beyond finite space. The organism is a machine and consciousness relates to it like bile to the liver—so reassemble the machine and consciousness will return to it. [Fedorov 1990:99]

It may seem paradoxical to combine Orthodox Christianity with such a secular mechanistic notion of the body, but this odd combination might be precisely what allows Fedorov to be claimed by proponents of diverse and conflicting contemporary agendas. While adhering to stark metaphors of the body-as-machine, he nonetheless is clearly a religious thinker, if an unorthodox one. His writing style is mystical and often opaque. “True religion,” for him, is the cult of ancestors, which he describes as the “cult of all the fathers as one father inseparable from the Triune God, yet not merged with him” (1990:66). Fedorov disapproves of both deism and pantheism, deism because it separates God from the fathers and pantheism because it merges the fathers with God. Deism and pantheism, he claims, lead to atheism. In one striking move, he turns the notion of atheism on its head, defining it not as disbelief in a higher power but as “the acceptance of a blind force and its veneration and submission to it. Venerating a blind force means deifying it, assuming it to be alive” (1990:66). It appears that the blind force he has in mind is nothing other than nature itself, which he assesses negatively as something to be actively improved and transformed. At the same time, transforming nature does not contradict his belief in God. Quite the contrary: “Serving God entails transforming the blind, death-bearing force into a life-giving one, by controlling it” (1990:66). Thus, the human transformation of nature is not simply consistent with divine will, it is the quintessence of divine will.

Fedorov did not call himself a Cosmist. The term was retroactively applied by Russian scholars in the 1970s to a diverse group of early 20th-century philosophers and scientists who were believed to share major themes with him. Key Soviet scientists Tsiolkovskiy and Vernadskiy were included among Russian Cosmists, along with religious philosophers

such as Vladimir Solov'ev and Pavel Florensky.<sup>16</sup> One scholar of Russian Cosmism, George M. Young, notes that Fedorov's appeal both fed and benefited from an ethos characteristic of the first decades of the 20th century that he refers to as "Promethean." From within the Promethean ethos, philosophy is not understood as mere reflection but as a form of action. The view draws from both Friedrich Nietzsche and Marx on the "death of God," proclaiming the need for humanity to take its destiny in its own hands. Cultural currents contemporary with Cosmism that shared this general ethos included god-building, a movement that attempted to build a new, human-centered religion compatible with Marxism; certain strains of occultism; and a broad worldview of technological utopianism (Young 2012:177–193; see also Siddiqi 2008 on the relationship between Cosmism and technological utopianism in 1920s Russia).<sup>17</sup>

Importantly, the Bolshevik Revolution in Russia was accompanied by a major scientific revolution, specifically an explosion in experimental biomedical research starting in the late 19th century and culminating in the 1910s and 1920s, that dramatically changed people's "understandings of life and death" (Krementsov 2013:192). Early Soviet planners looked to remold the individual into the New Soviet Person by remodeling consciousness through social engineering but also by altering biological capacities, as expressed in the early Soviet term *anthropotechnics*. Initially defined as an "applied branch of biology devoted to the improvement of human physical and spiritual qualities," the idea was to use innovative biology and experimental medicine to better the human condition by enabling control of basic life processes.<sup>18</sup> Russia's early successes in areas such as tissue and organ transplantation, immunization, blood transfusions, hormone therapies, cell cultivation, and heredity generated "a euphoric vision" in which, through science, humanity would "control life, death, and disease" (Krementsov 2013:25). That Fedorov's ideas gained so much traction in the 1920s had as much to do with this biomedical revolution as with the general ethos of the time.

A significant figure in the early 20th-century scientific revolution that also might be considered a precursor to contemporary transhumanism is Alexander Bogdanov (1873–1928). Like Fedorov, Bogdanov was a rare polymath: philosopher, physician, scientist, revolutionary, and well-known writer of science fiction. He first outlined his ideas in a popular science fiction novel, *Krasnaia zvezda* (*Red Star*, 1908), which tells the story of a Russian scientist and revolutionary who travels to Mars with a Martian to visit the ideal communist society built on the red planet. In this completely egalitarian society, not only have inequalities in private property ownership been overcome but so also have bodily inequalities. Gender differences are blurred: A Martian who is first thought to be a man turns out to be a woman (and a complicated love story ensues). What is more, citizens of Mars have erased the boundaries between

individual bodies and attained a kind of universal kinship through regular blood exchanges for the purpose of rejuvenating each other and extending their lifespans.

After the Revolution, Bogdanov became fascinated by contemporary research in rejuvenation and life extension and started experimenting with blood transfusions precisely as he had laid out in his science fiction. He formulated a theory of the "viability of organisms" to replace the notion of "rejuvenation," as the latter implied more benefit for old people than for the young (Krementsov 2011).<sup>19</sup> By 1925, he had won state funding to establish a major research institute in Moscow, the Institute for Blood Transfusion, which was devoted entirely to research on and the practice of "mutual" blood transfusions.

Perhaps most striking about Bogdanov's fascination with blood transfusions is the idea of "physiological collectivism." As expressed in his earlier science fiction, Bogdanov felt that in any truly egalitarian society, more than property and privileges would be shared; so would the very corporeal properties of persons. Thus, life extension (and, ultimately, immortality) was only one goal motivating his science. The creation of a kind of universal kinship through exchange of what he considered a key bodily substance—blood—was another. In his essay, "On Physiological Collectivism," he writes,

The task of this operation is to overcome any *quantitative or qualitative insufficiency* in a patient's blood by means of another person. The deep and uniquely revolutionary meaning of the method is that it breaks the boundaries of physiological uniqueness and supports one organism through the life-giving elements of another in the fight against destructive nature (*stikhiinost'*) and in *close biophysical cooperation*. [Bogdanov 2003, my translation]

The essay posits a new conception of the self, envisioning new possibilities in the relationship between self and other, beyond what is available to autonomous bounded subjects. The idea is not unlike the semipermeable selves "able to engage with others" proposed more than half a century later by Donna Haraway (1991a:225) in her critique of immune system discourse. Similarly, Bogdanov anticipates the notion of physiological collectivism running up against deep-rooted cultural taboos that prohibit the mingling of self and other. In "our individualist era," he notes in conclusion, people

are generally disgusted by any violation of the boundaries of the physiological personality (*lichnost'*) and mixing with the elements of another life. They fear this imaginary loss of individuality, and this is how an individualist perceives a creative expansion of his personality. The kind of collectivism of feeling and sociality of the spirit (*natura*) that we need are still very rarely

encountered. But they do exist, and with the progress of culture their numbers are growing. A new atmosphere, without which the very idea of *physiological collectivism of life* would have been unthinkable, is currently being created. [Bogdanov 2003]

After performing ten blood exchanges, in 1928 Bogdanov died following an unsuccessful attempt to share his own blood with that of a young student suffering from tuberculosis. The student nearly died as well, but doctors managed to save him.

While Bogdanov was not a follower of Fedorov and is not generally considered a Cosmist, he shared with Fedorov not only a belief in technological utopianism but also the idea of immortality and life extension as essentially a “common task.” Both believed in the importance of kinship in achieving the ideal state of society, Fedorov through the universal resurrection of ancestors and Bogdanov through the linking together of bodies via shared somatic substances. Importantly, their views on human malleability anticipated the Soviet-period construction of the human as an essentially plastic being by facilitating a framing of the body in secular mechanistic terms—a view shared by some contemporary transhumanists. At the same time, other transhumanists emphasize Fedorov’s spiritual dimension, especially his notion that technological progress is doomed in the absence of spiritual development.

### Producing the post-Soviet human

“The body is a vehicle, a car,” said Igor Trapeznikov, a transhumanist and staunch supporter of cryonics, when I met him in Moscow not long after meeting Itskov.

Igor Trapeznikov: You need to take care of it. If you go into a coma, the car stops. The tow-truck comes to pick you up and—if you don’t have relatives who are into cryonics—it takes you to the junkyard.

AB: If a body is a car, what is personality?

IT: The driver. For the majority of people, personality is the drunk driver, an idiot driver. Driver-child, driver-fantasy maker. Look at how some people ruin their body-car by the time they are 50 or 60. Others, in contrast, take care of the car and live longer. Yogis, for example. They are experts in taking care of the car and even the driver. They have developed a certain kind of mental hygiene. But yogis have different goals than we do. Their goal is nirvana. Ours is unlimited life duration.

The body-as-machine metaphor, of course, is old and multivalent, running through the course of Western history, from certain strains of early Greek philosophy to the Enlightenment to Soviet futurism to current global biomedical discourses. In this framework, spiritual practices such as yoga are only legitimately of interest if understood

under the secularized rubric of self-mastery, of “mental hygiene.” Unlike Itskov, who clearly identifies with a yogi and considers himself a spiritual seeker, Trapeznikov seems to endorse a mainstream biomedical framework, pushing it to its logical extreme. In his rendering, the “yogi” is not an “obscurantist” (as Itskov, e.g., would be portrayed by his detractors) but a rational, secular technologist of the body. The machine–body metaphor opens the way for the possibility of immortality, since, to quote cultural theorist Boris Groys (2013), to become immortal, one first has to become a machine.

That secularist transhumanists like Trapeznikov have adopted the body-as-machine metaphor is perhaps unsurprising given the general tendency of transhumanism toward “ultra-Enlightenment” (Fuller and Lipinska 2015).<sup>20</sup> Perhaps more striking are the ideas of personhood expressed by transhumanists who are not opposed to religion and spirituality but, instead, are keen to reconcile mystical insights with cutting-edge futurist science. A good example came up during my conversation with Itskov, as I prodded him to clarify the overlapping terms he was using: *soul*, *consciousness*, *subtle body*, *self*. He answered in his characteristic mix of occult, scientific, and quasi-scientific terms:

These words are not quite synonyms for me. There is “consciousness,” which is, in my opinion, an individual phenomenon. And there is also “soul,” which is a database of many reincarnations—although not all religions believe in reincarnation. So in my opinion, the “database” of the soul adds experience to the “central” database, which releases a smaller sub-database, and a new reincarnation begins. And if the soul does not separate after freezing the body—and I asked the spiritual masters, they said there is a possibility that it won’t—then we would need to create a bio-clone or some kind of artificial body, like the one we propose in the Avatar Project, and look for a way to get the soul inside.

Given his belief in the immaterial nature of consciousness and soul,<sup>21</sup> then, building an artificial body seems to Itskov both more promising and more urgent than cryonic preservation. Although it is possible to conceive his aim as resolving the dilemma of dualism by ultimately forgoing the biological body in favor of an immaterial virtual body, Itskov remains an ontological dualist in his views on the mind–body connection. By contrast, other Russian transhumanists appear to be materialists—whether mystical materialists like Fedorov and the Cosmists or cryonicists who reject mind–body dualism by treating consciousness as an epiphenomenon of the brain. That is why, for them, freezing the brain holds the most logical appeal. Yet other transhumanists—in violation of their own beliefs—view the rejection of mind–body dualism as a radical intellectual move that, however admirable, will ultimately fail to win supporters in Russia. Anton Avdeev, a

friend of the cryonicists at KrioRus and an owner of the only private mainstream funeral business in Russia that offers cryo-preservation as an option, summarized the situation like this: “Cryonicists lack metaphysics. They lack the idea of a released soul. That is why it would be extremely difficult for them to conquer the minds of the majority in Russia . . . . They need a mystical component. They need to develop ritual.” In reference to the conflict described earlier, when villagers protested the location of a cryonics facility in their area out of fear that cryo-patients could turn into soulless zombies, Adveev remarked, a bit tongue-in-cheek, “Transhumanists need to try to make friends with the villagers. Show them that you can be useful! For example, if one of their horses breaks a leg, can you print a new one on your 3D printer? Then maybe villagers will let you use their horse carts to transport your storage containers with frozen bodies.” Otherwise, he insisted, the movement will fail to find support in what he sees as a “deeply religious country.”

Just how “religious” contemporary Russia really is has recently become the subject of heated debate. Since the fall of the USSR, religion has assumed an increasingly public role, most importantly in the form of the Russian Orthodox Church, provoking secularists to voice concerns about *klerikalizatsia*, or the merging of church and state. Indeed, so-called blasphemy trials; the introduction into schools of religious education classes; the influence of the clergy in bioethical matters like abortion, euthanasia, stem cell research, and homosexuality; a recent law protecting “the feelings of religious believers”; and frequent statements by state leaders declaring that Russian Orthodoxy is (or should be) the unifying national idea for Russia are all viewed with alarm by international observers and secular Russian liberals.<sup>22</sup> Political scientists, despite the widespread concern, have tended to peg religion as a secondary concern for the Kremlin, except in areas where the interests of church and state converge. Converging interests include critiques of liberalism and Westernization as well as issues regarding religious pluralism, education, and security (Anderson 2007; see also Knox 2003; Papkova 2011). Underlying the bioethical positions of the Russian Orthodox Church, in other words, is the religious critique of Western liberalism, with its assumption of a rights-based autonomous individual, and, for transhumanists, this critique has made the church into a force to be reckoned with.

In January 2014, Valerija Pride and some fellow cryonicists agreed to debate representatives of the Russian Orthodox Church.<sup>23</sup> Their opponents were led by Father Vitaliy Utkin, a regional spokesman for the church and head of Church–Society Relations in Ivanovo-Voznesenskii diocese. Father Utkin presented a statement entitled “The Challenge of Transhumanism: Endless Progress into the Depths of the Unhumanning (*Raschelovechevanie*) of Humanity.” “According to transhumanists,” he argued, “humanity has reached the stage where, in deference to science and

technological progress, it is ready to reject itself, to reject humanness itself as a form of existence.” He went on to portray Christianity as offering a notion of the human that is incompatible with the one put forth by transhumanism:

A person is neither an assemblage of genes, nor a collection of electric impulses in the brain. A human is an eternal personality (*lichnost'*), created in God's image and likeness. But a human consists not only of the soul, but also of the body. The body is very important. The souls of all people will be reunited with their own bodies after a universal resurrection from the dead. It is in these transformed bodies that they will reside in eternity.

Along with a disclaimer attesting to his openness to modern medicine—Father Utkin shared with the audience his recent expensive ordeal of having his teeth replaced—he posed a question: “Where is the border between improving human health and transforming into the posthuman?”

“There is no border,” replied Valerija. “There is no difference. When we get artificial limbs, we are still human.” She went on, “If we get a kidney transplant, we are still human. If we get an artificial heart, we are still human. I have heard that Christians think the soul is in the heart, but will you reject an artificial heart? Even if we get an entirely artificial body, then we will still be human. What remains? Just the brain.” It is worth noting at this point that despite transhumanism's perception by many as “fringe” science, and discounting controversial practices such as cryonics, transhumanist views of personhood are mostly in line with the ideas of mainstream cognitive neuroscience. In such a brain-centered conception of personhood, writes historian of science Fernando Vidal, “if the brain of person A is transplanted into the body of person B, then A undergoes a body transplant, rather than B a brain transplant.”<sup>24</sup> Vidal points out that although such a surgery is still not feasible,<sup>25</sup> some individuals are already looking to protect themselves. In an older version of the Swisstransplant cards carried by potential organ donors in Switzerland, the brain and reproductive organs were explicitly excluded. The exclusion preserved personal identity for both the donors and those persons whose identity would have been partly defined by their descentance from them (Vidal 2002:938). Transhumanism, and cryonics in particular, can be viewed as a radical epistemological extension of the dominant neuroscientific view of personhood, in that cryonicists preserve the brain as the locus of the person.

Father Utkin disagreed. Even were science to figure out how to animate cryonized bodies and repair their original ailments, he asserted, the reanimated person would not be the same person as the one who was frozen. That original person, he said, died and remains dead. Strikingly, he invoked Judaic mythology: The reanimated person would be nothing but a Golem, a mud doll revived by magical means.

“Who do you want to reanimate?!” screamed a woman from the audience at Valerija. “You want a monster?”

“Why a monster?” Valerija smiled. “My Mom!”

Father Utkin was also at pains to stress the importance of immortality not being realized through human effort, “as Fedorov and the Cosmists wanted.” He condemned the influence of Russian Cosmism on contemporary transhumanism, calling it “Russia’s own brand of secular immortalism,” dangerous and Western oriented. In a statement published shortly after the debate on an Orthodox online portal, Utkin called transhumanism an alarming “globalist” trend that has taken off very well in Russia thanks to the persisting legacy of Soviet atheism. “It is via the ideas of ‘Russian Cosmism’ that the older generation of our scientists are attempting to find their place among the globalist trendsetters” (Utkin 2014). Yet, as I hope to have demonstrated in this article, contemporary Russian transhumanism has as many roots in socialism and revolution, the site of “the human” as the supremely plastic project, as it does in Russian religious philosophy.

### Conclusion: The common task

The ethnographic case studies for this article draw from conflicting camps in the contemporary Russian transhumanist movement—the cryonics community and the 2045 movement founded by Dmitry Itskov—and from the conflict between these two camps and the Russian Orthodox Church. Despite disagreements over how to conceptualize personhood, expressed in their divergent ontologies of body and mind, Russian transhumanists share the fundamental assumption that to be human is to be malleable and to be an active agent in self-evolution. This view contrasts starkly with the Russian Orthodox vision, in which agency is ultimately divine rather than human and which insists on the fixity of the physical body in anticipation of eventual resurrection and eternal life. Moreover, the views shared by conflicting camps within transhumanism have much in common with Russian Cosmism and various secular strains in early Soviet techno-utopianisms.

Father Utkin’s identification of affinities between Russian Cosmism and “globalist ideology” notwithstanding, nothing could be further from contemporary global neoliberalism than the imaginary of Russian Cosmism, with its roots in “unorthodox” Orthodox Christianity. Just as Fedorov and subsequent techno-utopian revolutionaries championed the “common task” of immortality, contemporary transhumanists evince a range of subjectivities grounded in historical changes and moral imaginaries. Fedorov envisioned the resurrection of ancestors as an ultimate act of love and compassion, and Bogdanov sought immortality for all through mutual blood transfusions, literally eliminating the boundaries between self and other. These seekers of “scientific” immortality viewed its

achievement as a fundamentally collective—some would even say totalitarian—endeavor. In Fedorov’s utopia, there was no exclusion from resurrection, doing away with an individual right to remain dead (Hagemeister 1997:202). How does this Fedorovian sensibility play out in postsocialist Russia, where the idea of the collective seems to have given way to the erosion of the Soviet welfare state, the shrinking of social institutions, and the shifting of obligations to individuals under the guise of personal sovereignty?

As is often pointed out, neoliberal technologies of government have reorganized the powers of the state, placing “increasing emphasis on the responsibility of individuals to manage their own affairs, to secure their own security with a prudential eye on the future” (Rose 2007:4)—and to take “adequate care of one’s own genetic capital” (Braidotti 2013:116). Postsocialist Russia underwent the transition from welfare state to its own variety of (authoritarian and oligarchic) neoliberalism in accelerated fashion during the 1990s free-market reforms and economic shock therapy, and some transhumanist views give the impression of being uniquely positioned to crystallize the resulting sensibility. Indeed, in their search for immortality, transhumanists (many of them political libertarians) appear committed to being responsible consumers of medical practices as well as of scientific discoveries and technologies. Likewise in a libertarian fashion, many Russian transhumanists oppose bioethics committees, institutional review boards, and what they see as the “slow” and “conservative” institutions and practices of mainstream science. Instead, they advocate so-called seasteading, the creation of permanent dwellings at sea outside the control of governments, where they plan to conduct experiments they believe will hasten the achievement of human immortality by building knowledge in such areas as human cloning and stem cell research. Considering these ideas, far from Bogdanov’s vision of porous selfhood in the context of “physiological collectivism,” transhumanists appear to champion an investor’s conception of the self, whereby the person comes to be made up of a flexible collection of assets: A person is proprietor of his or her self as a portfolio (Martin 2000:582).

Yet the multiple notions of selfhood I have surveyed in this article clearly take us beyond the sovereign skin-bound self. The future and current technologies advocated by transhumanists—from consciousness transfer into a robotic body (Itskovian Body B) to making an entirely prosthetic brain (Body C or Rebrain) to isolating the brain or the head to be frozen in liquid nitrogen—unsettle any stability in ontologies of selfhood. Is the self a database or a soul, a driver or a hologram? The staggering variety in conceptions of body, brain, mind, consciousness, personality, and selfsameness becomes a guide to political and ethical action. Itskov, for example, envisions universal immortality. But first he wants to use the very idea of transcending biology through technology to prompt a conceptual

breakthrough, a paradigm shift, making people realize, as he himself professes, that the physical body is not all that there is to the human.

Next to Itskov's acute messianism, cryonics appears to dwindle into a merely rational practice of investing in the self, a sort of insurance policy against death, a radical extension of already mainstream practices aimed at providing one a degree of sovereignty over time, like freezing eggs to delay having a child (Romain 2010). Yet an aspect of cryonics that often gets overlooked is that it is a deeply intersubjective endeavor. Freezing someone's body in hopes of future reanimation is a form of long-term and intergenerational caregiving. Frozen bodies require maintenance by successive generations, and they also require a community and a society to wake up to.<sup>26</sup> What is distinctive about KrioRus, as opposed to the U.S. cryonics companies, is how deeply embedded it is in kinship relations. KrioRus was created initially to provide free or low-cost cryopreservation for activists' closest kin and only secondarily as a business catering to outsiders. Almost everyone in the inner circle of KrioRus has a grandmother, grandfather, parent, or at least a beloved cat or parrot waiting in liquid nitrogen for resurrection. One could argue that they are fulfilling a distinctly Fedorovian goal of filial duty by striving for the eventual resurrection of previous generations. A "common task," indeed.

That said, there remains one crucial difference between cryonicists' and Fedorov's visions. It is a difference that came to the surface recently when Svetlana Semenova (1941–2014)—the most prominent scholar of Russian Cosmism and a devoted follower of Fedorov, responsible for rescuing his legacy from obscurity in the 1970s—passed away in December 2014.<sup>27</sup> A few days before her death, KrioRus's Valerija approached Semenova's daughter, Anastasia Gacheva, offering to perform a cryopreservation procedure.<sup>28</sup> The daughter declined. She explained that while Semenova respected cryonics as one of the avenues of "scientific immortalism," she did not consider it the only possible way to achieve immortality. Semenova believed, her daughter clarified, that "the development of science will give everyone the opportunity to become immortal, not just the select cryo-patients. Like Fedorov, she wanted not to be among the *elect*, but among *everyone*" (*ne v chisle izbrannykh, a v chisle vsekh*, emphasis added).<sup>29</sup>

Of the decision to refuse her generous offer (free cryopreservation, as Semenova was very respected among transhumanists), Valerija said she was disappointed but at the same time that she considered such a decision noble. She went on to say that, were there a "fair, state-sponsored cryonics program," she was confident Semenova would have been more amenable. Some transhumanists, however, beg to differ. Several movement activists said in private conversations that Semenova's decision not to cryonize was regrettable and is not consistent with the spirit of the

"Common Task." "What does it consist of, if not that?" they asked.<sup>30</sup>

As Semenova's daughter reports, her mother, nonetheless, agreed before her death to allow KrioRus to preserve a sample of her DNA, as she believed it to be a democratic procedure that "corresponds to Fedorov's main idea." Transhumanists hope that in the future it might be possible to reconstitute a human from DNA alone. Four days before Semenova's passing, Anastasia traveled to the cryonics facility with one of her mother's hair follicles. As far as Semenova was concerned, if the universal resurrection is a few centuries or a millennium off, she was just as happy to wait.

## Notes

*Acknowledgments.* I thank Jean Comaroff, Nica Davidov, Abou Farman, Bruce Grant, and Donald Lopez for reading and commenting on earlier versions of this article. A version was presented at the faculty colloquium at the Department of Anthropology at Harvard University in April 2014, and I thank my colleagues for their comments and suggestions. I am especially grateful to *American Ethnologist* editor Angelique Haugerud and to six excellent anonymous reviewers, who provided very insightful comments. I thank the National Science Foundation for their support toward this research.

1. *Zamri, umri, voskresni* (*Freeze, Die, Come to Life*, 1989) is a Soviet dramatic film directed by Vitalii Kanevskii. The title refers to a Russian children's game similar in some ways to the game known in parts of the world as "statues" and in the United States as "red light, green light."

2. Although Lenin was ultimately embalmed, freezing his body was one of the options discussed by the Soviet Communist Party's Central Committee (Yurchak 2015:10–11).

3. These data are current as of May 2015. The list of patients is available at KriosRus n.d.

4. The idea of "active evolution" has been elaborated by Russian scholars of the Cosmist movement. See Semenova and Gacheva 1993.

5. Author interview, June 2013. I conducted all interviews in Russian, and all translations are my own.

6. Throughout this article, I refer to major figures using the name (either first name or surname) by which each is best known in the movement.

7. See <http://style2030.ru/about> (last accessed May 5, 2015).

8. Although cryonics first emerged in the United States, some scholars argue for the "Russian trace" in its history, citing early experiments in freezing and thawing of live organisms by Russian scientists Porfirii Bakhmetiev (1860–1913) and, later, Petr Shmidt (1872–1949) (Soloviev 1995; see also Kremetsov 2013).

9. Author interview, July 2013, Moscow, Russia.

10. This is a common scenario, I was told by several transhumanists who cryonized their relatives. While brains are preserved, bodies can be either buried or cremated.

11. Author interview July 2013; see also Karpov 2013.

12. Itskov is unsure just how consciousness would be transferred, suggesting that he intends to use "Buddhist methods." Indeed, consciousness transfer, or 'grong 'jug, has a long history in Tibetan Buddhism. It is supposed to allow a dying person to transfer his or her consciousness into a fresh corpse, either human or animal.

13. Michael Hagemester writes that a study of Tsiolkovsky's philosophy would shed a new light on the Soviet space program, which was "supposed to open the cosmic way to the transfiguration and

perfection of humanity, and finally to eternal salvation" (1997:198). The human body, according to Tsiolkovsky, will be rebuilt to accommodate the conditions of the cosmos, ultimately losing its corporeality and turning into a kind of radiation.

14. According to *The Princeton Dictionary of Buddhism*, "The elements of the material body that remain at death depend on the spiritual level of the deceased adept; the very highest leave no physical remnant at all, or in some explanations just hair and nails, and disappear with just a rainbow left behind" (Buswell and Lopez 2013, s.v. "ja lus").

15. How exactly the selfsameness of the body will be achieved upon resurrection was a focus of intense debate by early Christian theologians, especially in the third and fourth centuries. Early theologians also engaged in vigorous debates on related matters, such as whether aborted fetuses, Siamese twins, and people eaten by cannibals will be resurrected and if so, in what form. See Bynum 1995 for analysis of how the resurrection of the body figured prominently in Christian eschatology from the third century to the Middle Ages. Fernando Vidal extends Bynum's work by focusing on postmedieval debates, identifying a gradual disembodiment and a trend toward "disincarnation" in Christianity and in Western notions of the self in general. Continuing from the Middle Ages into the contemporary period, the focus has shifted from notions of the selfsameness of the resurrected body to notions of psychological continuity, then, in Protestantism, to further disembodiment of the self and the marginalization of traditional resurrection doctrines, and finally to neuropsychological scientific and philosophical conceptions of selfhood (Vidal 2002).

16. Hagemeister insists that there are more differences than similarities between Fedorov and Tsiolkovsky. Tsiolkovsky did not advance the idea of resurrecting the dead and perfecting mankind in its entirety. On the contrary, he advocated perfection and immortality only for select humans, as he was an adherent of eugenic betterment of humanity (Tsiolkovsky 2011:32). Svetlana Semenova and Anastasia Gacheva (1993:29–31), by contrast, argue that what unites Fedorov and Tsiolkovsky most closely is the idea of emancipation from earth. As Hagemeister (2011:30) notes, for both, expansion into space was only a means to their respective goals: resurrecting the dead for Fedorov and the self-perfection of humanity, as well as the achievement of eternal bliss, for Tsiolkovsky. The relation between Fedorov and Tsiolkovsky is contested by scholars, with some insisting that Fedorov influenced Tsiolkovsky (the two did meet, when Tsiolkovsky visited Moscow as a young man to study at the Chertkov Library, where Fedorov was a librarian supervising his studies) and others arguing that Fedorov never spoke to Tsiolkovsky about his ideas. For an expanded list of references on this debate see Hagemeister 2011:38 n. 26 and Siddiqi 2008:266–267 and n.24.

17. Russian scholars and followers of Fedorov do not consider him "Promethean." In fact, they oppose the *prometeizm* (Prometheanism) of Bogdanov, the god-builders, and the Bolsheviks—understood as humans striving to replace God—to what they refer to as Fedorov's *teoantropurgia*, in which the world is radically transformed through the joint action of God and humans, with God leading the way (Anastasia Gacheva, personal communication, March 2015). I would agree, yet I contend that Fedorov's ideas, often stripped of religious implications, fed into a precisely Promethean cultural ethos, from the god-builders to Biocosmists to transhumanists.

18. The term *anthropotechnics*, which first appeared in 1926 in *The Great Soviet Encyclopedia* (Shmidt 1926:130–131), was used by Fedorov's follower Valerian Murav'ev (1993:203). See also Peter Sloterdijk's (2013) recent attempt to apply the early Soviet term more globally in the sense of a general reshaping of human possibilities.

19. Bogdanov theorized that "in the young, cancer occurs only in extremely rare instances . . . ; hence, there are serious reasons for thinking that young blood could be the best means in the struggle against cancer." He used tuberculosis to further illustrate his point. Since the disease, as Bogdanov wrote in 1927, "occurred mostly among the young," immunity could be transferred from the old to the young through blood exchanges (Krementsov 2011:86). Nikolai Kremmentsov (2011:12) also mentions Bogdanov's suggestion that blood exchanges could be the ultimate cure for the "Soviet exhaustion" that had started to plague the aging party elite.

20. Steve Fuller and Veronika Lipinska write, "Whereas posthumanism may be seen in the broad sweep of Western intellectual history as 'counter-Enlightenment,' transhumanism is better seen as 'ultra-Enlightenment': The former sees the Enlightenment as having gone too far, the latter not far enough" (2015:410).

21. Farman finds similar conceptions of self as "information" among U.S. transhumanists. He argues that this "informatic self" might be a nondualistic way to overcome the ontological mind-body gap without falling into reductive materialism (Farman 2012:422–460).

22. In the church document titled *The Basis of the Social Concept of the Russian Orthodox Church*, which contains the church's positions on a number of social issues, homosexuality is included under "Bioethics" and not under "Family" (see Russian Orthodox Church 2000).

23. Not all in the Russian Orthodox faction at this debate were official representatives of the church. The initiator of the debate was Dmitry Enteo, a well-known radical Orthodox activist. A videotape of the debate is available; see "Transhumanism against God" 2014.

24. For the critique of the notion of "personhood-as-brainhood," see Rose and Abi-Rached 2013:220.

25. As I was putting finishing touches on this article in March 2015, a story featuring the claims of Italian neurosurgeon Sergio Canavero that a full-body transplant is two years away exploded in the news (Canavero had published a paper providing a detailed outline of this surgery two years prior to the news story). A Russian programmer, Valerii Spiridonov, suffering from terminal muscle-wasting disease volunteered to be the first recipient of transplant (Goldschmidt 2015). Some of my transhumanist research participants referred to Spiridonov's desire to risk this controversial surgery as an "act of sacrifice." KrioRus contacted him offering a free cryopreservation in case the surgery "does not work." Some Russian transhumanists, however, remain skeptical of Canavero's claims.

26. I thank an anonymous reviewer for this helpful comment.

27. Semenova was the key figure of the Fedorov Society (Fedorovskoe Obshchestvo; those associated with it are called *fedorovtsy*), a loose contemporary Russian religious and philosophical circle. Fedorovtsy follow Fedorov but do not consider themselves transhumanists. Underlying their ideas is the interpretation of Fedorov's teaching as an example of "active Christianity," a Christian practice engaged in bringing about the world's transformation. Despite serious disagreements on the role of religion, some prominent fedorovtsy are friendly with transhumanists. As they say, "We share a common enemy—death." In fact, the formation of the transhumanist movement in Russia took place under the auspices of the Fedorov Readings (Fedorovskie Chteniia), a conference of the Fedorov Society held every few years. Given these close ties, Semenova's recent death was a major event for transhumanists.

28. Anastasia Gacheva, the daughter of Semenova and the late philosopher Georgii Gachev, is a scholar of Cosmism as well and has coauthored books with Semenova. She has now become the key figure of the Fedorov Society.

29. Gacheva, personal communication, March 2015.

30. Another disappointed transhumanist previously friendly with fedorovtsy told me that by refusing to cryonize Semenova, they “failed to make a statement that fedorovtsy and transhumanists are allies in fighting death.” Author interviews, March–June 2015.

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- Anya Bernstein  
Department of Anthropology  
Harvard University  
Tozzer Anthropology Building  
21 Divinity Avenue #218  
Cambridge, MA 02138  
abernstein@fas.harvard.edu