

# SERGIUS BULGAKOV'S CRITIQUE OF N. F. FEDOROV'S TECHNOLOGIZED RESURRECTION (AND WHY IT STILL MATTERS FOR THE CHRISTIAN DIALOGUE WITH TRANSHUMANISM)

by *Travis Dumsday*

*Abstract.* Sergius Bulgakov (1871–1944) was one of the centrally important Russian Orthodox theologians of the past century. His theological system (Sophiology) is among the most detailed and comprehensive attempts at a novel, Orthodox systematic theology developed in engagement with western philosophical and theological movements. His first major work of theology, *Unfading Light* (1917), incorporates an early Orthodox critique of the radical Christian transhumanism propounded by Nikolai Fedorovich Fedorov (1829–1903). Fedorov had developed an account of humanity's prospects for a technologically facilitated eschatology. The goals of this article are: (1) to provide a concise summary of Fedorov's ideas on technologized resurrection; (2) to provide an overview of Bulgakov's sympathetic critique of Fedorov's model; and (3) to discuss the ongoing relevance of that critique vis-à-vis current and future Christian dialogue with the transhumanist movement.

*Keywords:* eschatology; futurism; magic; orthodoxy; science; technology; transhumanism

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## INTRODUCTION

The religion and science literature has in recent years witnessed an upsurge in contributions on the interrelated topics of genetic engineering, artificial human enhancement, radical life extension, and transhumanism.<sup>1</sup> Insofar as these discussions take their impetus in part from novel technological developments (most especially the biotech and artificial intelligence [AI] revolutions), one might initially suppose that the scope for insights from historical theology would be limited. However, some theologians working in this area (e.g., Burdett 2015, 18–24) have pointed out that

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aspects of contemporary transhumanist thought have roots traceable back to the nineteenth century and beyond, with one significant precursor being Nikolai Fedorovich Fedorov (1829–1903).<sup>2</sup> Though Fedorov's openly Christian vision conflicts with much current predominantly (though by no means wholly) *secular* transhumanism, his thesis that humanity can and should aim at a technologically facilitated defeat of death (including even a technologized resurrection of our dead ancestors) resonates with certain strands of transhumanist thought today. Moreover Bernstein's (2019) work shows how Fedorov's influence extends explicitly into current Russian transhumanism.

Just as many Christian scholars are leery of contemporary transhumanism and subject it to critique, Fedorov's ideas attracted critical attention in his own day and shortly thereafter. One such assessment was published in 1917 by Sergius Bulgakov (1871–1944), who was among the most prominent Russian Orthodox theologians of the past century.

I have three aims for the following discussion, which will serve to subdivide the article into its main sections: (1) to provide readers who may not be acquainted with Fedorov a clear and concise summary of his main ideas concerning technologized resurrection; (2) to give an overview of Bulgakov's sympathetic (yet trenchant) appraisal of those ideas; and (3) to explain why Bulgakov's critique of Fedorov still matters.

Hopefully those already acquainted with the Fedorov/Bulgakov exchange on technologized resurrection will find nothing objectionable in (1) and (2)—my intention in these sections is simply faithful exposition of the relevant texts. However, my development of the third point regarding ongoing relevance will likely prove contentious. For my suggestion is that their exchange retains interest in part<sup>3</sup> because new developments in science and technology will likely soon (within the next few generations) establish *both* that human consciousness survives the death of the human body *and* that human consciousness cannot be uploaded into computer hardware using any available technical means (contra the hopes of some secular transhumanists keen on the idea of a digitized immortality). It is the combination of these two discoveries that will likely motivate the pursuit of aspects of Fedorov's program, though using decidedly nontechnical means (something also foreshadowed in Bulgakov's discussion, as we shall see). Bulgakov's critique of that program can then serve as a bulwark (at least for Christians) against the false doctrines and spiritually pernicious practices that are liable to grow up around that pursuit.

#### FEDOROV ON TECHNOLOGIZED RESURRECTION

N. F. Fedorov lived a somewhat solitary life as an independent scholar and librarian in Moscow. The latter role brought him into contact with other Russian intellectuals, some of whom were shown pieces of his

unpublished writings. His reputation gradually grew along with interest in his controversial ideas, to the point where those ideas were being actively discussed by such figures as Tolstoy, Dostoyevsky, and Solovyev.<sup>4</sup> He became still more widely known upon the posthumous publication in 1906 of his major work *The Philosophy of the Common Task*. This book, assembled by friends of Fedorov working off of the copious manuscript notes he had left behind, covers a wide range of subject matters but finds an overarching thematic unity via a central thesis: humanity will only achieve peace and a sense of unified kinship by commitment to a common cause genuinely worthy of it and achievable by it, with the only proper candidate cause being the final defeat of mortality.

Fedorov thinks of that defeat as total, with humans no longer subjected to death and with our dead ancestors brought back to life. Moreover he envisions it as something to be realized by human technological advancement working in accordance with divine providence but *not* with special divine intervention. The eschaton will involve the return of the dead to life, in accordance with God's plan as revealed in scripture, but God will accomplish this through human technology rather than miracles. It is our job as human beings to realize the divine plan through joint action among ourselves, directed toward this common task. Technologized resurrection is paired in Fedorov's eyes with a colonization of the wider cosmos; risen universal humanity will require more than just planet earth as a home, and so our species will have to extend itself out to other planets, a process he sees as having also been part of God's intent for prelapsarian humanity.

Stated starkly in this fashion, Fedorov's vision for the future may initially seem simply bizarre; analogous proposals stemming from current transhumanists already strike many as odd,<sup>5</sup> so they are liable to seem even stranger coming from someone formulating such ideas within the context of nineteenth-century science and technology (however marvelous the advancements of that era may have seemed to those living at the time). Yet, such a reaction would be premature, at least until one has situated that vision within the larger set of theoretical commitments adopted by Fedorov. So let us examine some of these, focusing on those most relevant to his ideas on technologized resurrection.

To begin, Fedorov is committed to the truth of Christianity. While one might question the orthodoxy of some of his views (we shall see Bulgakov doing just that, to a degree), his belief in a literally existent God Who really intends universal human bodily resurrection plays a key role in his thinking, as do other distinctively Christian doctrines. Both his writings and what we know of his life indicate a sincere commitment to the Christian faith.

God is the creator of the natural world and had originally intended humanity to exercise conscious control over it. Yet, in its present fallen state our earthly environment is governed instead by blind forces;

correspondingly, so-called “natural” laws operate in a fashion largely outside of God’s original intent, much to the detriment of humanity. Fedorov’s conception of the fall mostly accords with the standard Eastern Orthodox understanding of that doctrine, with its emphasis on Adam’s progeny having inherited a propensity to biological death and a disconnected and disharmonious relationship with nature—both our own bodily natures (e.g., unruly passions) and also the external natural world. (It accords less with the notion of the fall standard in the western churches at the time, according to which what we chiefly inherited was Adam’s guilt, with all the other consequences following from our attendant juridical condemnation by God.) Fedorov is keenly conscious of humanity’s weakness and propensity to sin, but in his optimism regarding the achievability of the common task through human cooperative effort and ingenuity he downplays somewhat the moral effects of our fallenness, to a greater degree than is typically seen in Orthodox theology. And, as we shall see in more detail below, for Fedorov the most significant feature of the fall (at least for his theoretical purposes) is not our moral weakness but rather our lack of control over external nature and its laws, a severe diminishment in the rational human stewardship over the planet that had been the original intention of God.

That fallen state of affairs has been exacerbated in modern times by our selfish appropriation of the earth’s resources for our own lowly ends. Fedorov ([1906] 1990, 34) complains that “people have done all possible evil to nature (depletion, destruction, predatory exploitation) and to each other (inventing most abominable arms and implements of mutual extermination). Even roads and other means of communication—the pride of modern man—serve merely strategic and commercial purposes, war and gain.” Our fallenness is also displayed in selfish individualism, which leads us to neglect duties both to our living fellows and to our deceased ancestors. Our tendencies toward individualism result in alienation between persons, alienation between persons and society at large (manifested in a deeply misplaced sense of national affiliation), between persons and nature, and most crucially between *living* persons and their dead ancestors. Fedorov ([1906] 1990, 42) writes:

Among the causes of unbrotherliness we include ‘citizenship’ and ‘civilisation’, which have displaced brotherhood, and also ‘statehood’, which has replaced loyalty to the land of the fathers. Loyalty to the land of the fathers is not ‘patriotism’, which replaces love for the fathers with pride in their achievement, thus substituting pride (a vice) for love (a virtue) and self-love and vanity for love of the fathers. People who take pride in the same object can form a knightly order but not a brotherhood of loving sons. However, as soon as pride in the exploits of the fathers is replaced by grief over their death, we will begin to perceive the Earth as a graveyard and nature as a death-bearing force.

So we live in a radically corrupted world—a “graveyard” in fact—characterized by human selfishness operating within a blindly cruel nature. What should our response be to this wretched status quo?

Fedorov’s answer is that we need to engage in the collective project of developing our intellects, and our mastery of science and technology, to the point where we can overcome the laws of nature and impose a godly human will over our planet. The preliminary stages of this project will involve the implementation of novel social policies, such as compulsory public education and (echoing Plato’s *Republic*) the collective management of marriage ([1906] 1990, 61–62). The imposition of human control over natural forces must be complete, such that the entire course of nature can be directed with a view to human welfare, from mastery over the weather (e.g., using technology to manipulate rainfall and thus do away with poor crop yields and resulting famine) to control of ever more exalted spheres of creation.

This process will also involve a wholesale reconstruction of how we look at the essence and import of the scientific enterprise. Scientific elites may not recognize the necessity of attaining such a level of control over our world, and in fact may even denigrate the idea as violating the norms of science, seen by them in terms of disinterested inquiry—knowledge for knowledge’s sake. But according to Fedorov that simply betrays the upper class prejudices of scientists, who are usually urban intellectuals lacking in direct experience of nature in all its fallenness, and who tend not to be as severely affected by nature’s disorder and unreliability. Rural peasants, by contrast, well understand the need to press nature into our own service. The peasantry is the true inheritor of the Baconian conception of science as concerned primarily with the mastery of nature for purposes of human welfare. Fedorov ([1906] 1990, 39) notes that “the hostility of nature to humans ... is felt most acutely if not exclusively in villages, where people confront the blind force directly; whereas townsfolk, being remote from nature, may think that man lives at one with nature.” Or again, he writes ([1906] 1990, 39–40): “Scientists, who take no direct personal part in the struggle or in actual war and who are outside the reach of natural disasters because they are sheltered against them by the peasantry—who bear the full brunt of nature—will remain indifferent even to the depletion of natural resources *and to changes in climate*. Indeed, changes in climate may be pleasant to town dwellers, even when they result in crop failures” (emphasis added). The rural peasantry wisely intuits that the point of science is not to know the natural world for its own sake; it is, after all, a fallen world radically different from what its Creator had originally planned. God’s plan was that humanity should develop a conscious, total control over the natural world, so we are not violating His will in dominating nature (we are not “playing God,” to use today’s language), but *fulfilling* it, and in this respect reversing one of the effects of the fall.

Science properly construed then cannot be value-neutral or taken up as part of a quest for abstract truth. To conceive science in such a fashion even leads (paradoxically) to a kind of subtle superstition, a semipagan veneration of nature of a sort that “civilized,” scientific cultures thought themselves immune from. And, since our scientific civilization thinks of death as being a part of nature (a part of the “circle of life” we might say), we tend even to venerate *it* and attempt (in vain) to reconcile ourselves to it precisely as natural ([1906] 1990, 76): “Death is venerated too, as being natural. The fear of death leads to regarding death itself as a liberation from this agonizing fear, to writing laudatory hymns and glorifying it . . .” But such an attitude is deeply mistaken, and unChristian. Death is *not* natural, if “nature” is conceptualized in terms of God’s original intent for our world ([1906] 1990, 80): “[T]he most general evil affecting all—a crime, in fact—is death, and therefore the supreme good, the supreme task, is resuscitation . . .”

So a truly meaningful science, a *human* science rightly directed toward distinctively human ends, must have as its goal the conquering of humanity’s great enemy, death. We tend to miss this crucial fact because of our insufficient love for our living fellows and dead fathers (Fedorov almost always speak of *fathers* in this context), but once we have admitted it then scientists (and scholars more broadly) can realize a truly purposeful life. As Fedorov ([1906] 1990, 46) puts it:

So long as the object of science is to solve the problems of causes in general, it remains concerned solely with the question, “Why does the existing exist?” This is an unnatural, a wholly artificial, question, whereas it would be quite natural to ask, “Why do the living die?” Because of the absence of brotherhood, this question is not posed, or even perceived, as requiring investigation. Yet this is the sole object of research which could provide a meaning to the existence of philosophers and scholars, who would cease being a caste in order to become a provisional commission with a specific purpose.

This grand effort will require massive, novel human cooperation, entailing the end of both civil strife and interstate armed conflict. Fedorov is aware that this ambition may seem hugely overoptimistic, but he maintains that universal pacifism can be brought about when we are converted to the pursuit of a common task that will itself fulfill the high aspirations that military conquest is so often bound up in. He writes ([1906] 1990, 82): “History must become the chronicle of the struggle for each other and against the blind force of nature acting both outside and within us; not a struggle to the finish against each other, but a struggle to the finish for union against death, for resuscitation and life.” And later ([1906] 1990, 98): “The obstacle to the building of a moral society is the absence of a cause or task great enough to absorb all the energies of those who spend them at present on discord.”

The defeat of death is the only endeavor that could be so exalted as to turn us permanently away both from civil discord and from foreign wars. By this massive common human effort, and in accordance with the will of God, our technology will one day advance to the point where we can put a halt to mortality. This victory, to be complete, must have two components: (1) that by technological advancement no one else need ever die again and (2) that by technological advancement we will develop the means to reconstitute the bodies of our dead forefathers and in so doing to resurrect them from the dead.

Now, say this grand ambition is somehow fulfilled, such that via the development of heretofore hardly dreamed-of advances in science and technology we are able both to stop death in its tracks and to raise the dead (not merely the newly dead but *all* the dead). One might then ask: where will we put everyone? On top of living persons there will be hundreds of millions of dead to bring back, and earth will eventually run out of both space and resources. But this simply points to another component of Fedorov's vision, namely, the necessity of colonizing other worlds, thereby fulfilling God's plan of extending humanity's reach beyond earth and into the heavens ([1906] 1990, 90). To the objection that many of these distant planets may have environments hostile to human life as we currently know it, he suggests that this too is something that can be overcome, and in fact that such an overcoming was also part of God's original intention for human beings. God's plan, he suggests, was that man employ earth as a launching pad, as it were, for the development of human nature and human science to the point where we could safely leave earth behind and adapt ourselves to radically different environments. He writes ([1906] 1990, 101):

Of course we cannot know what the world was like in the beginning because we only know it as it is. However, judging by the Creator, we can to some extent presume or imagine what a world of innocence and purity could have been. Could we not envision, too, that the relations of the first humans with the world were similar to those of an infant not yet in control of his organs, who has not yet learned to manage them — in other words, could the first humans have been beings who should (and could, without suffering or pain) have created such organs as would have been capable of living in other worlds, in all environments? But man preferred pleasure and failed to develop, to create organs adapted to all environments, and these organs (namely, cosmic forces) became atrophied and paralysed, and the Earth became an isolated planet. Thought and being became distinct. Man's creative activity of developing organs corresponding to various environments was reduced to feeding and then devouring.

Notably, Fedorov seems to be suggesting here that what will enable our living on seemingly hostile planets is the alteration of the human frame rather than the alteration of the environments of these planets ("terraforming" them, to use the presently popular term), something that

draws yet another connection between his thought and recent work on radical genetic enhancement and transhumanism.

He makes relatively few concrete suggestions for what sorts of technology might be employed to accomplish these grand ends. When he does, he occasionally puts forward interesting (even prophetic) suggestions. For instance, he is very keen on the need to progress beyond the use of coal for energy (mining being such a dangerous and unpleasant occupation for the miners), and suggests that eventually we shall have to figure out how to harness solar power to meet all our energy requirements ([1906] 1990, 37). At other times his suggestions are left rather more vague, as in his notion that we will learn to control special, heretofore hidden “forces” by which death is to be conquered and man’s reach extended out beyond the solar system. Fedorov even seems to entertain an idea analogous to Einstein’s later notion of the convertibility of mass and energy, though replacing the latter factor in the equation with some sort of force directly obedient to conscious human will ([1906] 1990, 80):

If we consider history as the “Good News,” it is clear that the reason why the Resurrection of Christ was not followed by general resurrection is that the Resurrection of Christ was the beginning and history is the continuation. General resurrection could not immediately follow that of Christ because it has to be the conscious work of the human race uniting the length and breadth of the globe — indeed, the field of action is not limited to planet Earth. By using the mass of Earth and transforming it into conscious force, the united human race will give to the telluric force, controlled by reason and feeling — that is, by a life-giving force — domination over the blind force of other celestial bodies,<sup>6</sup> and will involve them in a single life-giving force of resuscitation.

Elsewhere he adds ([1906] 1990, 90) that the defeat of death for those still living will involve methods that are inherently bound up with the resurrection of those already dead, making use of technology to convert the basic elements of matter into the ingredients of a living human frame.

A further objection that naturally arises at this point turns on an accusation of hubris: isn’t it crazy to think that humanity could ever understand the forces of life and death well enough to assert such total control over them, even if the technological means of doing so were theoretically possible? Fedorov counters that such a charge itself entails a kind of subtle and insidious hubris, the pride of thinking that we could know it is impossible that we *couldn’t* ever understand such forces adequately, even by divine design. He writes ([1906] 1990, 99):

Mortality is an inductive conclusion. We know that we are the offspring of a multitude of deceased ancestors. But 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. Death is a property, a state conditioned by causes; it is not a quality which



determines *what a human being is and must be*. We know no more about the essence of death, actual death, than about actual life. Yet by limiting our knowledge to the phenomena of life we narrow our field of action; whereas by rejecting the proud right to decide what death is in reality, we widen our field of action, we become the executors of God's will and the tools of Christ in the cause of general resurrection. (Emphasis in original translation)

In his view there is then a kind of humility involved in the openness to the possibility of human victory over death. Since we don't really know what death is, how could we know that we *can't* overcome it via technological progress?

Fedorov persistently draws on Christian doctrine for support, but occasionally also gives a nod to secular materialist readers who will have no truck with the notion of a soul returning to its body, and who may then wonder how human technology could ever really reassemble a deceased person, bringing her back just as she was. Fedorov replies that his suggested schema of technologized resurrection ought in fact to seem *more* plausible to a materialist inclined to reduce human nature to a structure of particles. For if that is all that a person is, what insuperable barrier could there be to a reconstitution of the deceased? He writes ([1906] 1990, 99): "However, one should remind them [the intellectual class sceptical of immortality] 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. These are your own words, and they should impel you to start at last on the job...." Fedorov is not here affirming the truth of such a materialistic conception of human nature; rather, he is making a rhetorical point to the effect that anyone who *does* adopt materialism cannot then assert with any confidence that a technologized resurrection is wholly infeasible.

There is a great deal more going on in Fedorov's idiosyncratic system, but hopefully the preceding has given the reader some sense of what his ideas concerning technologized resurrection consist in, and some sense of the philosophical and theological reasoning lying behind them. At the least, I trust the preceding will suffice as an entry point into Bulgakov's critical engagement with this aspect of Fedorov's thought, to which we may now turn.

#### BULGAKOV'S CRITIQUE OF FEDOROV

Bulgakov begins his assessment by keying in on a question that he believes Fedorov spends too little time on (perhaps because the latter thinks its answer inscrutable to us at present), namely, the true natures of life and death. Bulgakov writes ([1917] 2012, 372):

It is necessary to single out the very core of the question concerning resurrection as it is posed in *Philosophy of the Common Task*. What is life and what is death? A lack of clarity in this fundamental question introduces regrettable ambiguity and indefiniteness to the whole doctrine of Fedorov. In answer to it two possibilities begin to take shape: either the human organism is only a machine, a mechanical automaton and death is only its demolition and corruption, or a spirit lives in it that quickens the body and is united with it, and for that reason death is an unnatural dissolution of the union of spirit and body.

As Bulgakov develops this critique, this question of the ontology of human nature becomes a core concern: what sorts of things are we? If we take on the latter view that we are *not* purely physical entities then there is no guarantee that a technological resurrection of human bodies could succeed in resurrecting human *persons*.<sup>7</sup> How could human material technology, however advanced, ever succeed in “calling back” the spirit to the body? In fact the discarnate human spirit has no innate potentiality to reinvigorate the corpse it was once joined to. Existing separately from its physical frame, the spirit cannot by itself (nor by any external, merely human intervention) succeed in reassuming that frame. In other words, a discarnate spirit cannot reanimate its own corpse. Bodily resurrection can only occur by divine intervention, not human power. Moreover, only God can free us permanently from the prospect of mortality, and He does so by granting us not merely bodily resurrection but resurrection into supernaturally *transfigured* immortal bodies, something human technology could never accomplish. Only these transfigured bodies, brought into being at the prophesied eschaton, can serve as the proper abodes of return for discarnate humans ([1917] 2012, 373): “The soul can return only to the transfigured body of the resurrection, and it is of no use to sew together again the decrepit and unraveled ‘leathern garment’ of a deceased body from the scraps.”

A potential objection to Bulgakov’s claim here regarding this special status of the transfigured body of the new heaven and new earth: what to make of Lazarus returning to life in his normal, nontransfigured earthly body? He addresses this point a bit later ([1917] 2012, 374): “It is permissible to think that the resurrected Lazarus, although he had passed the gates of death, was by God’s pleasure held in something of the *initial* moments of the postmortem path. ‘Lazarus our friend has fallen asleep’—these words of the Lord are not merely allegory; they point to the special character of Lazarus’s death, more like sleep, a temporary halt to life, than the final separation of body and soul. ... Therefore between Lazarus’s death and Christ’s death on the cross there is a qualitative difference” (emphasis in original translation). As he goes on to develop this contrast further, he points out another problem for Fedorov’s account of technologically facilitated immortality: it is the resurrection of Lazarus, not Christ, that Fedorov’s model most closely approximates—an extension

of human life as we know it rather than the glorious new mode of life that God promises us in scripture. Fedorov's vision of immortality is much diminished, qualitatively, as compared with the kind of immortality actually proclaimed by the Church.

So Bulgakov's central line of criticism is that Fedorov has neglected to consider the prospects for a technologized resurrection in light of a developed Christian theological anthropology. Once one has, in dialogue with scripture and tradition, clarified the nature of life and death and of the relationship between spirit and body, one can show that the sort of schema laid out by Fedorov is indeed impossible. One can likewise show that even if it were possible, it would result in a badly attenuated vision of human immortality, one far removed from the transfigured state sketched out in the Bible.

As a related point Bulgakov also challenges Fedorov's concession to materialism, according to which resurrection of the dead ought to be theoretically possible even on a wholly physicalist ontology. Bulgakov thinks this too would be impossible, though for different reasons than those invoked in defending the impossibility of technologized resurrection from within a Christian anthropological framework. The problem from a materialist perspective has to do primarily with continuity of identity; for a materialist, there is no guarantee that reassembling the parts that had composed one's ancestor would thereby give you back *that* ancestor specifically. In the course of framing this criticism of Fedorov's account, along the way Bulgakov ([1917] 2012, 372) also clarifies his own views on the divergent explanatory roles of soul versus spirit (the body/soul/spirit trichotomy being a common, though not universally affirmed,<sup>8</sup> way of thinking about human nature within Orthodoxy):

It is fully evident that the ... materialistic hypothesis, strictly speaking, does not admit of the idea of resurrecting, i.e., of the return to life *of the same* living creature. The identity of the person resurrected with the previously living one is established by the unity of the supratemporal and immortal human spirit, which quickens the body, while individuality is communicated to the body through the means of the animal soul. Let us allow that thanks to the "regulation of nature" ... sons were successful in gathering from planetary space all the atoms of the decomposed bodies of deceased fathers and managed to ignite life in the re-created bodies. And let us further allow that these bodies were exact repetitions of the organism of the deceased according to external and internal composition and that they possessed consciousness of the bond and even of the identity with their previously living doubles. What can be more horrifying than this infernal fabrication, and what can be more baneful than such a counterfeit of resurrecting than these automatically moving dolls that possess a complete resemblance with those organisms once living but now broken and decayed? ... Resurrecting proposes not only the fullest likeness, but also numerical identity: not two identical copies of one and the same model, in essence entirely alien to each other, but the restoration of the very same, single life

only temporarily interrupted. Of course, *such* was the idea of N.F. Fedorov, who was a deeply faithful Christian. (Emphases in original translation)

So even from a materialist perspective a technologized resurrection could only succeed in bringing about inhuman external replicas of our dead loved ones, a horrifying prospect. (Inevitably the contemporary reader thinks of zombies at this point, or perhaps Frankenstein's monster.) It is noteworthy that in this passage Bulgakov seems to allow that such replicas could theoretically possess a sort of consciousness of their own, though he may be entertaining this merely provisionally, adopting a materialist view of consciousness for the sake of argument.

Bulgakov goes on to argue that anything more than that—that is, anything more than the formation of material simulacra of the deceased, even simulacra showing signs of what we would think of as “life”—would in principle have to involve not technology but *theurgy*. And that, even if efficacious in theory, would be even worse. There are good reasons why magic is forbidden in scripture.<sup>9</sup> As he puts it ([1917] 2012, 377): “The very thought of the deceased being violently awakened from their rest or of the world being flooded by some sort of vampires, incarnated denizens from the astral world, contains something nauseating and mystically loathsome, resembling necromancy.” Thankfully, as a matter of fact it *isn't* possible, whether by science or magic or some horrid hypothetical amalgam of the two. For the true nature of a human being is composite, not solely material, and only God can reunite spirit with body.

Bulgakov also critiques Fedorov's model of technologized resurrection for positing an exaggerated human independence from divine activity, writing that ([1917] 2012, 375) Fedorov “wants the human being, by realizing the will of God in creation, to make do as far as possible without God and apart from God, with the rupture of the divine-human unity, indivisible and unconfused.” Ontologically speaking Fedorov's model is not really an example of divine-human synergy, but simply a work of man—even if one supposedly *intended* by God. For God has no ongoing, cooperative involvement or direct role to play in bringing back the dead. It is a work of human ingenuity accomplished by interhuman cooperation in the reorientation of science and technology. For Bulgakov, the notion that the eschaton could be inaugurated by human energies alone is deeply suspect.

#### RELEVANCE FOR THE CHRISTIAN DIALOGUE WITH CONTEMPORARY TRANSHUMANISM

Having now reviewed the key points of the Fedorov/Bulgakov dialogue on technologized resurrection, I would like to turn to a consideration of its ongoing relevance.

The sort of “transhumanism” at work in Fedorov's philosophy is very different in some ways from the largely secular formulations of

transhumanism currently popular. Nonetheless Fedorov's work, and the core elements of Bulgakov's critique of it, importantly foreshadow where transhumanism may be headed. How so? Because the inevitable failure of naturalistic attempts at transhumanist victory over death (e.g., attempts to "upload" human consciousness into computers or robots), combined with empirical verification of human survival of bodily death (something liable to come about within the next few generations, for reasons developed below), may lead to the revival of something akin to Fedorov's vision, and also of the theurgical practices that will be thought necessary to achieve it. That is, once strict materialism has been empirically falsified, secular transhumanists will become even more enthralled with controlling what happens to postmortem consciousness—with the attempt to rejoin consciousness to the newly deceased and likely also with bringing back the consciousnesses of the long-dead. Yet, in time they will realize that doing so via technological means is wholly unworkable. In frustration they may give up. Or, more probably, they won't. Rather, they will carry their efforts further; and having abandoned strict materialism (as one must upon recognizing the reality of discarnate human consciousness), they will likely be willing to roam farther in their speculations, turning from technology as we think of it today to a broader conception of "techne" incorporating some mix of modern instrumental technology with ancient ceremonial magic. Bulgakov's critique will then prove useful as a Christian corrective of this spiritually pernicious madness.

By way of further clarification, let me reframe the point: from the perspective of an Orthodox understanding of human nature, it is clear that the ambitions of some contemporary strands of transhumanism are unattainable. Given that we are fundamentally spiritual beings, there is simply no way to use technology, however advanced, either to secure immortality for those presently living or to bring back the dead. From that perspective there would be, for example, no way to upload genuinely human consciousness into a computer or robot or to resurrect the deceased. Serious attempts along these lines will eventually be made, and one might assume that such attempts, though involving a lamentable waste of money and human ingenuity, will entail nothing worse by way consequences—just another failed scientific research program. And that might well prove true, were the attempts at technologized immortality + resurrection to end there, in honest technological failure. But it is possible they won't end there, due to another development that will take place in the relatively near future: namely, empirical proof that human consciousness is distinct from the human brain and survives the death of the body (at least for a time).

That latter prediction is of course liable to seem balmy upon initial perusal, but I hope that readers who have waded through so many strange ideas up to this point will indulge the consideration of one more.

What is the basis for this prediction? It is the rapidly progressing lines of medical research into the veridicality of near-death experiences (NDEs). Since the development of CPR in the 1960s, many millions of people have been brought back from clinical death, and hundreds of thousands of those (at least) have come back with tales of what they experienced while clinically dead (when, in theory, they shouldn't have been experiencing anything at all). A substantial literature on NDEs has developed, both academic and popular. This literature is concerned in part with the collection of case studies, and in part with attempts either to explain them scientifically or to show that they function as a standing challenge to naturalism.

Some of the case study literature seems evidentially impressive. Consider, for example, the following, excerpted from van Lommel et al. (2001, 2041), part of a study on cardiac patients' reports of NDEs published in one of the world's leading medical journals:

During the pilot phase in one of the hospitals, a coronary-care-unit nurse reported a veridical out-of-body experience of a resuscitated patient: "During a night shift an ambulance brings in a 44-year-old cyanotic, comatose man into the coronary care unit. He had been found about an hour before in a meadow by passers-by. After admission, he received artificial respiration without intubation, while heart massage and defibrillation are also applied. When we want to intubate the patient, he turns out to have dentures in his mouth. I remove these upper dentures and put them onto the 'crash car'. Meanwhile, we continue extensive CPR. After about an hour and a half the patient has sufficient heart rhythm and blood pressure, but he is still ventilated and intubated, and he is still comatose. He is transferred to the intensive care unit to continue the necessary artificial respiration. Only after more than a week do I meet again with the patient, who is by now back on the cardiac ward. I distribute his medication. The moment he sees me he says: 'Oh, that nurse knows where my dentures are'. I am very surprised. Then he elucidates: 'Yes, you were there when I was brought into hospital and you took my dentures out of my mouth and put them onto that car, it had all these bottles on it and there was this sliding drawer underneath and there you put my teeth.' I was especially amazed because I remembered this happening while the man was in a deep coma and in the process of CPR. When I asked further, it appeared the man had seen himself lying in bed, that he had perceived from above how nurses and doctors had been busy with CPR. He was able to describe correctly and in detail the small room in which he had been resuscitated as well as the appearance of those present like myself. At the time that he observed the situation he had been very much afraid that we would stop CPR and that he would die. And it is true that we had been very negative about the patient's prognosis due to his very poor medical condition when admitted. The patient tells me that he desperately and unsuccessfully tried to make it clear to us that he was still alive and that we should continue CPR. He is deeply impressed by his experience and says he is no longer afraid of death. 4 weeks later he left hospital as a healthy man."

For another example, consider the following case from Morse and Perry (1990, 1–5). Morse is a pediatrician who, among his other duties, has studied NDEs among children. He tells here of his first encounter with a child reporting an NDE:

I stood over Katie's lifeless body in the intensive care unit and wondered whether this little girl could be saved. A few hours earlier she had been found floating facedown in a YMCA pool. No one knew how long she had been unconscious or exactly what had happened to cause her to lose consciousness. ... I didn't really expect to find out what had happened. The machines to which she was now hooked up told a grim story. An emergency CAT scan showed massive swelling of the brain. She had no gag reflex. An artificial lung machine was breathing for her. ... Looking back even now, I would guess that she had only a ten percent chance of surviving. I was the doctor who resuscitated her in the emergency room. ... [Morse then recounts a prayer vigil held by the child's immediate family.] Three days later she made a full recovery. Her case was one of those medical mysteries that demonstrate the power of the human organism to rebound.... When she was feeling well enough, I had her come in for a follow-up examination. One of the things I wanted to know was what she remembered about her near drowning. The answer was important to the type of treatment she would receive as an outpatient. Had she been hit on the head? Had someone held her under water? Had she blacked out or experienced a seizure? ... Katie clearly remembered me. After introducing myself, she turned to her mother and said, "That's the one with the beard. First there was this tall doctor who didn't have a beard, and then he came in." Her statement was correct. The first into the emergency room was a tall, clean-shaven physician named Bill Longhurst. Katie remembered more. "First I was in the big room, and then they moved me to a smaller room where they did X-rays on me." She accurately noted such details as having "a tube down my nose," which was her description of nasal intubation. Most physicians intubate orally, and that is the most common way that it is represented on television. She accurately described many other details of her experience. I remember being amazed at the events she recollected. Even though her eyes had been closed and she had been profoundly comatose during the entire experience, she still 'saw' what was going on. I asked her an open-ended question: "What do you remember about being in the swimming pool?" "Do you mean when I visited the Heavenly Father," she replied. Whoa, I thought. "That's a good place to start. Tell me about meeting the Heavenly Father." "I met Jesus and the Heavenly Father," she said. Maybe it was the shocked look on my face or maybe it was shyness. But that was it for the day. She became very embarrassed and would speak no more. I scheduled her for another appointment the following week. What she told me during our next meeting changed my life.

Case studies of this sort could be multiplied many times over, but in the interests of space I will leave it at those two.

The scientific study of NDEs is seeking to progress from the simple collection and analysis of cases to prospective research studies designed to test the veridicality of NDEs by testing the reliability of perceptions people claim to undergo while in supposedly discarnate states. So far the largest

such research program has been the AWARE study conducted between 2008 and 2012 by Sam Parnia and his research team, later published in a respected peer-reviewed medical journal as Parnia et al. (2014).<sup>10</sup> This particular study involved fifteen participating hospitals in America, Britain, and Australia, and had as its research subjects medical patients who had undergone cardiac arrest and been revived via CPR (and who met various other criteria pertaining to legal competency and consent). Key components of the study were its parameters for attempting to measure the accuracy of the seemingly discarnate visual perceptions that NDEs often report as part of their overall experience of clinical death. During an NDE the experiencer often reports the sensation of floating above her own body, looking down on her clinically dead frame and watching the medical team go through their attempts at revival. The aim of Parnia's research was to move beyond anecdotal reports of the accuracy of these discarnate observations, and to try to develop parameters for the objective testing of the veridicality of these alleged observations. Parnia et al. (2014, 1800) write:

To assess the accuracy of claims of visual awareness (VA) during CA [cardiac arrest], each hospital installed between 50 and 100 shelves in areas where CA resuscitation was deemed likely to occur (e.g. emergency department, acute medical wards). Each shelf contained one image only visible from above the shelf (these were different and included a combination of nationalist and religious symbols, people, and animals, and major newspaper headlines). These images were installed to permit evaluation of VA claims described in prior accounts. These include the perception of being able to observe their own CA resuscitation from a vantage point above. It was postulated that should a large proportion of patients describe VA combined with the perception of being able to observe events from a vantage point above, these shelves could be used to potentially test the validity of such claims (as these images were only visible if looking down from the ceiling).

The study was of considerable size, covering 2,060 patients experiencing cardiac arrest, of whom 330 survived, with another 140 consenting to interviews by Parnia's research team. Of those 140, a total of 101 patients completed the full interview process (the remaining having to drop out of the study due to the severity of their illnesses); of those 101 patients, 9 reported experiencing one or more of the classic features of an NDE, with 2 out of those 9 specifying that they had had what they took to be accurate discarnate visions of the physical environment surrounding their clinically dead bodies. Concerning these two patients, Parnia et al. (2014, 1802) write:

Both were contacted for further in-depth interviews to verify their experiences against documented CA events. One was unable to follow up due to ill health. The other, a 57 year old man described the perception of observing events from the top corner of the room and continued to experience a sensation of looking down from above. He accurately described people, sounds, and activities from his resuscitation....His medical records



corroborated his accounts and specifically supported his descriptions and the use of an automated external defibrillator (AED). Based on current AED algorithms, this likely corresponded with up to 3 mins of conscious awareness during CA and CPR. As both CA events had occurred in non-acute areas without shelves further analysis of the accuracy of VA based on the ability to visualize the images above or below the shelf was not possible. Despite the installation of approximately 1000 shelves across the participating hospitals only 22% of CA events actually took place in the critical and acute medical wards where the shelves had been installed and consequently over 78% of CA events took place in rooms without a shelf.

In a way this outcome is somewhat frustrating, showing that, despite the size of this particular study, in the end the research parameters were insufficient to provide compelling positive evidence for the veridicality of discarnate visual perception while in a state of clinical death. Even so, Parnia et al. (2014, 1803) plausibly argue that given the early stages of this particular line of research into NDEs, these results are by no means unimportant:

Despite many anecdotal reports and recent studies supporting the occurrence of NDE's and possible VA during CA, this was the first large-scale study to investigate the frequency of awareness, while attempting to correlate patients' claims of VA with events that occurred during cardiac arrest. While the low incidence (2%) of explicit recall of VA impaired our ability to use images to objectively examine the validity of specific claims associated with VA, nonetheless our verified case of CA suggests conscious awareness may occur beyond the first 20–30 s after CA.

They go on to explain that within the context of NDE research, it is recognized that awareness beyond 30 seconds into cardiac arrest is especially significant in evidential terms, since the present medical consensus is that after 30 seconds of clinical death all residual electrical activity in the brain comes to a halt. But the key point here is that this was the first large-scale study of its kind. If the (admittedly quite limited) positive evidential results can be replicated in larger studies with improved parameters, then eventually enough evidence may be accumulated to provide powerful, even decisive (by scientific standards) verification of the survival of consciousness after clinical death.

Some scholars working on NDEs have looked at this evidence and inferred that if such empirical work continues and expands in scope, within the relatively near future medical science might essentially prove the reality of some form of human survival. After an extended discussion of the Parnia study, I concluded with the provocative claim that “within the next 30 years, students will be learning in their high school biology textbooks that human consciousness is non-physical and that there is probably life after death” (Dumsday 2019, 9).

Now, there remains plenty of room to suppose that prediction premature; perhaps this line of research into NDEs will in fact move in the opposite direction, and provide no compelling evidence for the veridicality of the visual perceptions reported by those experiencing clinical death. But suppose that one day relatively soon the reality of postmortem survival becomes widely recognized as a scientifically established fact. Now add that recognition to a context in which the secular transhumanist project of technologized immortality + resurrection has proven a failure (e.g., attempts to upload human consciousness into machines).<sup>11</sup> We will then be in an interesting and unprecedented situation, one in which we are confronted with the twin facts that (1) human consciousness enjoys some sort of continued existence after clinical death (at least for a time) and that (2) all purely technological efforts to upload human consciousness into computers (and/or to restore human consciousness to the body after death) have persistently failed. Faced with these twin facts, are those committed to the transhumanist program more likely (a) to give up on their attempts to gain control over death now that they know death is not the absolute (or at least immediate) end of human consciousness, or (b) to redouble their efforts to gain control over death now that they know death is not the absolute (or at least immediate) end of human consciousness? My guess is that for most committed secular transhumanists, option (b) is liable to seem more enticing.

Perhaps that will not be the case for *all* of them; for some, empirical proof of human survival might prompt a rethink of their worldviews, perhaps even leading to a sympathetic exploration of the Christian framework. But I would suggest that for most, the abandonment of a strict materialism forced by this empirical evidence is unlikely to weaken previous opposition to Christianity, and more likely to prompt an openness to any number of nonnaturalist but also nontheistic conceptions of spirituality. To such transhumanists, forcibly uprooted from materialism but unwilling to consider Judeo-Christian theism, spiritual systems holding out the prospect of methods that will *supplement* human technology in the quest of controlling death are liable to seem immensely appealing. In other words, this brand of transhumanist is liable to fall into precisely the trap that Bulgakov so strenuously warns against, namely, a turn to sorcery as an aid to (or replacement of?) technology in the quest to gain control over death. And, it is in this future context that Bulgakov's critique of Fedorov will prove to be of especial relevance, insofar as he foresaw to some degree the connections between technological methods of overcoming death (which will inevitably fail), and older, darker methods, also doomed to failure but entailing far worse spiritual consequences for those making the attempt.

Bulgakov discerned that the desire to overcome mortality, when divorced from proper Christian hope in a divinely ordained bodily resurrection and paired instead with ambitions rooted in mere human

technology, is a desire bound to be frustrated. That frustration in turn would likely, for some, lead to further extremes, including a desperate abandonment of *mere* technology in favor of those darker methods. He saw the inherent risk of this in Fedorov's project, a risk inherent even given the well-intentioned would-be Orthodox theoretical standpoint within which Fedorov theorized. He would surely see a still *heightened* risk in the prospect of the frustrated desperation of the modern, initially secular transhumanist, impelled by new NDE data away from a strict materialism but not yet to Christian theism.

Again, all of that is highly speculative, and obviously disputable on multiple fronts. I will not here attempt to counter the many potential objections that might be raised, since in this third and final section of the article I have not so much been defending a hypothesis as entertaining a possibility. In other words, I am not claiming that NDE research will disprove strict materialism within the next few generations, nor that the technologies for consciousness-uploads will inevitably prove a failure within that same timespan. Nevertheless both are very real possibilities (perhaps even *probabilities*). And, the fact that Bulgakov's critique of Fedorov (or at least aspects of it) speaks so directly to those possibilities and their potential implications suffices to show that their dialogue retains more than merely historical interest.

## NOTES

1. For readers who may not be following this literature closely, a representative sample of articles (published just within the past five years) should provide some indication of the marked interest in these topics: Anderson (2019); Benders (2018); Cannon (2015); Cole-Turner (2015; 2018); Cruz (2015); Dumsday (2017); Fullam (2018); Gaitán (2019); Gallaher (2019); Gocke (2017); Gouw (2018; 2019); Green (2015; 2016; 2018); Ham (2016); Herzfeld (2016); Jong (2018); Jung (2019); Kellogg (2015); Kostick, Fowler and Scott (2019); LaTorra (2015); Lorrimar (2019); Mercer (2015); Miletic (2015); Molhoek (2016; 2018); Peters (2015; 2018; 2019); Singler (2019); Tirosh-Samuels (2018); Walker (2018); Weissenbacher (2018); Willows (2017); and Woloschak (2018).

2. Note that Fedorov's year of birth is variously cited in different sources, sometimes as 1827 or 1828 or 1829. I am going with Young (2012, 51) who lists the date of his birth as May 26, 1829.

3. I should stress the "in part," since there may be a number of reasons why the Fedorov/Bulgakov exchange remains relevant to our contemporary context, over and above the one I have opted to focus on. For example, there are several interesting parallels between our present cultural moment in the west and the Russian silver age (roughly 1890–1930) during which both Fedorov and the early Bulgakov worked. The latter was characterized by a serious disillusionment with organized religion among the intelligentsia; massive scientific and technological change; and a widespread interest in new and alternative spiritual ideas, including the occult. Given these parallels, and the way in which the Fedorov/Bulgakov dialogue intersects with each of them, there are no doubt other ways in which one could defend the ongoing relevance of that dialogue to our own time.

4. For further biographical details on Fedorov see Burdett (2015), Young (2012, ch. 6), and the translators' introduction to Fedorov (1906/1990, 11–30).

5. Comparable visions of using technology to bring back the dead are actively entertained by prominent secular transhumanists such as Ray Kurzweil, and have garnered attention both

in the scholarly literature and in the popular press. For an example of the latter, see Kurzweil's comments to Kushner (2009) regarding his ambition to resurrect his own long-dead father.

6. This notion of hidden forces inherent in nature and made directly subject to human will may seem more reminiscent of magic than of science, and while Fedorov does not make this connection, we shall see Bulgakov drawing out the association in his critique below.

7. For Bulgakov, human nature is constituted by the union of body, soul and spirit (more on this below). By contrast human *personhood* is for him something that transcends such characteristics, and has an irreducibly apophatic aspect—unsurprisingly, perhaps, given that personhood is also predicable of the divine. For instance he writes ([1917] 2012, 290): “*A human being is a hypostasis, a countenance, a person.... A person is indefinable, for it is always being defined with everything, remaining however above all of its conditions or determinations. Person is the unknowable mystery inherent to each, an unfathomable abyss, an immeasurable depth*” (emphases in original translation). Though Bulgakov's focus in critiquing Fedorov will mostly be on human nature rather than human personhood, it is perhaps worth noting that such a conception of personhood seems inherently inimical to any notion that it could be placed under the total control of human technology (especially to the point of its restoration to a corpse). Note too that this apophatic conception of personhood has become fairly prominent in Orthodox thought; for another example consider Yannaras (1967/2005, p. 78): “The Person of God — not to mention any human person — cannot be fixed or known by objective definitions, analogical correlations or conceptual assessments. For every person is a unique, existential reality, unlike any other and unrepeatable, a reality of absolute existential otherness, refractory of any objectivity that could be defined by the utterances of human language.”

8. For a differing view on this see for instance Pomazansky (1963/2005, 135–37).

9. Bulgakov is a persistent critic of occultism and of the many strands of western esotericism that had become prominent in Russia in the nineteenth and early twentieth centuries, a fact not fully appreciated by some scholars who have commented upon Bulgakov's engagement with these streams of thought. For a recent example, see the repeated discussions of Bulgakov and esotericism found in McClymond's (2018) otherwise admirable two-volume historical study of Christian universalism.

10. As is common with research papers appearing in medical journals, this article has many coauthors (thirty in fact) whose names appear in the byline. For reasons of space I have omitted these in the reference information below.

11. I lack the space to go in-depth into the reasons why such attempts are likely to fail, but should note at least the following: (1) within analytic philosophy of mind, the stock of *functionalism* (a theory of mind closely related to AI models of consciousness and sometimes thought particularly conducive to the prospect of “uploading”) has fallen rather badly over the past two decades; (2) neither neuroscience nor philosophy has made any progress in solving the so-called “hard problem of consciousness” (i.e., how precisely consciousness is related to the brain), and until that is solved it remains unclear how technical progress towards uploading could even begin; (3) dualistic and other arguably non-naturalist accounts of the mind/brain relationship (e.g., panpsychism and some forms of emergentism) are enjoying something of a renaissance within analytic philosophy. (See, for instance, Loose, Menuge, and Moreland 2018.) That fact, especially when considered in conjunction with the seemingly dualistic implications of empirical work on NDEs, further suggests that the prospects for technologically facilitated consciousness-to-computer uploads are poor.

#### ACKNOWLEDGMENTS

I would like to extend my sincere thanks to two anonymous referees for *Zygon: Journal of Religion and Science* for their many helpful corrections and suggestions. The article is much improved on account of their valuable input.

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