

Transhumanism and Roman Catholicism: Imagined and Real Tensions¹

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Abstract

Transhumanists have asserted that religious people would both oppose life extension and allowing people with extended lives to die. In this paper, coming from a Roman Catholic perspective, I refute four myths associated with these claims: that the Church opposes life extension both materially and conceptually, that it opposes human genetic manipulation, and opposes allowing people to die. I then propose that there are four real tensions that are much more significant: that material immortality is highly improbable, that injustice and inequality are major concerns, that transhuman omnipotence is impossible, and that utopianism is extremely dangerous.

Keywords

Transhumanism, posthumanism, enhancement, Catholic, moral theology, Christian ethics, bioethics

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What is the relationship between Christianity and transhumanism? Are these two worldviews antagonistic towards each other and if so, in what ways? In this paper I will argue that there are genuine tensions between Christianity and transhumanism, but they are not necessarily the tensions that some transhumanists have identified. While the myths I am addressing have been applied to Christians, theists, and religious believers in general, here I am only addressing the charges as they relate to Roman Catholicism. However, I believe that as a strong counterexample, Catholicism serves to debunk the myths more broadly.

The initial inspiration for my inquiry into whether and how transhumanism misunderstands Christianity was the February 1st, 2014, Transhuman Visions Conference in San Francisco, California.² At this conference, it was simultaneously asserted, though by different speakers, that 1) Christians oppose life extension because extending life will compete with their vision of otherworldly immortality,³ and 2) once immortality becomes possible, then Christians will not allow transhumans to die.⁴

² The conference description and schedule are available at Hank Pellisier's Brighter Brains website, accessed November 17, 2014: <http://brighterbrains.org/articles/entry/transhuman-visions-san-francisco-conference-tickets-on-sale-now>. Conference videos are available at the "Eternal Life Fan" YouTube Channel: <https://www.youtube.com/playlist?list=PLeMMREuUaUQAVMdmhLO5pJJaJoYyRi4-2>

³ Although somewhat implicit, this view was espoused by Roen Horn in his poem "Eternal Life Pirates Never Surrender," where he said "The imaginary afterlife offers us no relief, we won't drink the Kool-Aid of wishful belief... The deathists are blinded and deluded, they cannot see, so don't be persuaded by their eternal-life blasphemy." Roen Horn, "Roen Horn 1," Transhuman Visions Conference, Fort Mason, San Francisco, February 1st, 2014, minute 1:40- 2:30, accessed November 17, 2014, video available at: https://www.youtube.com/watch?v=_Act3FPc5q8&list=PLeMMREuUaUQAVMdmhLO5pJJaJoYyRi4-2&index=10. Ray Kurzweil is more explicit, saying "A primary role of traditional religion is deathist rationalization—that is, rationalizing the tragedy of death as a good thing." Ray Kurzweil, *The Singularity Is Near: When Humans Transcend Biology* (New York: Viking/Penguin, 2005) 372, cited in Ted Peters, "Progress and Provolution: Will Transhumanism Leave Sin Behind?" in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, Ed. Ronald Cole-Turner (Washington D.C.: Georgetown University Press, 2011) 73.

⁴ Paul Spiegel's remarks regarding what Christians might say about ending uploaded life are very clear: "There are plenty of people, fundamentalist Christians, for instance, who would say 'Absolutely not! God gives life, God takes it away. You wanted to be uploaded, buddy, that's it; we don't care how long you've been here, you're going to live forever, you cannot terminate yourself.'" Paul A. Spiegel, "Creating a Constitution for an Immortal Humanity," Transhuman Visions Conference, Fort Mason, San Francisco, February 1st, 2014, minute 8:17-8:35, accessed November 17, 2014, video available at: <https://www.youtube.com/watch?v=3HifOuytBW&list=PLeMMREuUaUQAVMdmhLO5pJJaJoYyRi4-2&index=13>. Other corroborating examples tend to deal with "right to die" or "death with dignity" advocates and their affinity for transhumanism and desire for conflict with religion. These require more consideration of the line between "allowing to die" and "suicide;" in Catholic teaching, the first is allowed but not the second, and this pivotal distinction seems lost on some transhumanists and others, who want to end "involuntary death." For a transhumanist perspective on suicide, B. J. Murphy writes: "the goal of a Transhumanist and Longevity advocate is to ensure that all future deaths are suicides." B. J. Murphy, "Why Transhumanists Should Support 'Right-To-Die,'"

These transhumanist assertions present an interesting contrast. How could Christians both oppose life extension and oppose letting those with extended lives die?⁵ It seems unlikely these are both true, and possible that one or the other could be true, but I will argue that they are actually both false.⁶ While some diverse extremes of religion might fall into one of these myths, mainstream Roman Catholicism, and Christianity in general, do not. When applied to Catholicism, and to get into the details, these two myths can be disaggregated into four myths, which are: 1) that the Roman Catholic Church materially opposes life extension, 2) that the Roman Catholic Church conceptually opposes life extension, 3) that the Roman Catholic Church opposes human genetic manipulation and other manipulations to the body for the sake of health, and 4) that the Roman Catholic Church opposes letting people die.

In addition to clarifying and setting aside these four myths, I also want to consider whether there are some real points of tension between transhumanism and Catholicism (and Christianity more broadly). I will argue that there are at least four major tensions between transhumanist and Catholic thought. These real tensions are: 1) the improbability of material immortality, 2) justice, access, inequality, attitude, 3) the impossibility of human omnipotence, and 4) the dangers of pursuing utopia. I will also suggest a few new ideas that might help transhumanism deal with some of the conceptual problems which I will highlight.

Institute for Ethics and Emerging Technologies, website, November 5, 2014, accessed November 17, 2014, available at: <http://ieet.org/index.php/IEET/more/murphy20141105>

⁵ Writing in a recent *Washington Post* column connecting the suicide of Brittany Maynard to radical life extension, Richard Cohen manages to touch upon both myths: “The medical and religious establishments continue to fight back. Death has always been in the domain of religion — the portal to the afterlife promised, or threatened, to us all. Little by little, science and modernity in general have circumscribed religion’s domain, so religion is making its last stand, so to speak, by telling us when we can make ours... When death dies, so too will heaven and hell.” Richard Cohen, “Brittany Maynard’s courage in dealing with death,” *The Washington Post*, November 3rd, 2014, accessed November 17, 2014, available at: http://www.washingtonpost.com/opinions/richard-cohen-brittany-maynards-courage-in-dealing-with-death/2014/11/03/9e997914-6387-11e4-9fdc-d43b053ecb4d_story.html.

⁶ It is worth asking why transhumanists would make the error which I am here trying to correct. I think there are four main options for how transhumanists could make this error. First, there could be a lack of knowledge – transhumanists might not actually know much about Christianity. Second, it could be a problem with interpretation – transhumanists may know Christianity, but still misunderstand it. Third, perhaps there could be tribalism and politics at play – transhumanists know and understand Christianity, but they are misrepresenting (intentionally or unintentionally) it to use it as a political opponent. Fourth, perhaps there is a problem of categorization, also called false generalization, or the compositional fallacy – lumping together groups which ought not to be lumped. In other words, Christianity is too diverse to qualify as one category. I think the most likely answer is a little bit of all four options: there is a lack of knowledge, trouble with understanding, political tribalism, and miscategorization. It should be noted that religious folks are quite capable of making these same types of mistakes with regards to transhumanism.

Myth 1: The Roman Catholic Church Materially Opposes Life Extension

What does it mean to “materially oppose” something? It means that the Roman Catholic Church would physically, practically, and actively opposes life extension, like it opposes abortion. Life-extending healthcare of all sorts would be forbidden. If this myth were true, the Roman Catholic Church would want people to die and the earlier the better. Catholic hospitals would not exist, nor any other Catholic entities which promote health and life extension.

This myth would be a straw man, except for the fact that those who call religious folks “deathists” would seem, at some level, to believe it. The Catholic Church is the largest non-governmental organization providing healthcare in the world, and depending on who is asked and how it is calculated, may be the largest healthcare provider, period, with 26% of all the world’s healthcare facilities.⁷ In other words, the Roman Catholic Church may do more to extend life than any other organization in the world. With regards to extending human lifespan by providing access to healthcare, transhumanism and Catholicism are on the same side.

People seem to know the Roman Catholic Church is pro-life, but simultaneously think it is anti-life-extension. While the categories are not necessarily coextensive, perhaps they should be. Why should transhumanists not be pro-life from conception to irrecoverable death? Why should Catholics not support indefinite life extension? In my mind pro-life and pro-life-extension should mean the same thing. The main differences between Catholics and transhumanists might be on whom should be considered for protection: the “who counts” question, e.g., embryos. In any case, the actions of the Roman Catholic Church clearly show it is not against life extension.

Myth 2: The Roman Catholic Church Conceptually Opposes Life Extension

What does it mean to “conceptually oppose” something? It would mean that the Roman Catholic Church opposes even the theoretical idea of life extension. The myth might construe the Roman Catholic situation thus: the Church might have a lot of hospitals, but they are just for show, or some other reason. The reality, according to this myth, is that the Roman Catholic Church is opposed to life extension simply because it looks to an afterlife – any extension of this

⁷ Citing a press release from the Pontifical Council for Pastoral Assistance to Health Care Workers, “Catholic hospitals comprise one quarter of world's healthcare, council reports,” *Catholic News Agency*, February 10, 2010, accessed November 26, 2014, available at: http://www.catholicnewsagency.com/news/catholic_hospitals_represent_26_percent_of_worlds_health_facilities_reports_pontifical_council/

life is only a side-effect of nefarious intentions to convert people or otherwise keep up appearances.

As with the previous myth, this is false. Catholic organizations seek to extend life because life is good in itself, as well as being a means to other goods. Life extension, via health care, is an extension of Jesus' healing ministry on Earth, which displays God's love for humanity and reveals God as the source of all life. Jesus himself was known as a healer, who "went about all the cities and villages... curing every disease and every sickness" (Matt. 9:35), and from whom "the blind receive their sight, the lame walk, the lepers are cleansed, the deaf hear, the dead are raised..." (Matt. 11:5). Jesus instructs his followers, after the Parable of the Good Samaritan, to "go and do likewise" (Luke 10:37), and teaches his disciples to "cure every disease and every sickness" (Matt. 10:1) and "cure the sick, raise the dead, cleanse the lepers" (Matt. 10:8).⁸ Clearly, Jesus wants his followers to heal others and extend human life, even to the extent of raising the dead (though what exactly that means, especially for us now, given the context of the verse, requires some reflection).

The only possible exception to the idea that the Roman Catholic Church promotes life extension is that, because of the belief in an afterlife, the Church does not see death as the ultimate evil. Loss of heaven is the ultimate evil, so if one loses temporal life to gain heavenly life, that is a good and worthy trade. This trade is, of course, one that many Christian martyrs have made and still do make in some oppressive countries even today. Contrarily, if one gains temporal life by losing heavenly life, that is a bad trade. Life is a gift from God to be protected, but not at all cost – if staying alive would mean killing the innocent or denying God then allowing oneself to die or be killed is the better choice. But need extending temporal life and gaining heavenly life necessarily be mutually exclusive? Clearly not, since extending temporal life is what good Catholic healthcare institutions, following the traditions of the Church, do all the time. The Catholic Church opposes using immoral means to extend life, but for simple life extension as a goal in itself, there is no objection. Human life and health, as good gifts from God, are to be protected and cared for.

⁸ All quotations from the NRSV translation, *The Holy Bible* (Oxford: Oxford University Press, 1989).

Myth 3: The Roman Catholic Church Opposes Human Genetic Manipulation

Some transhumanists promote human genetic manipulation for the purposes of life extension. What would it mean to oppose human genetic manipulation? It would mean that one ought not change to the human genetic code. If this myth were true then the Roman Catholic Church would oppose genetic therapy and enhancement for humans. Catholic hospitals could not provide gene therapy treatments, and the Roman Catholic Church would oppose such research.

This is a topic where people seem to assume the worst of the Church. The truth is that the Roman Catholic Church has no intrinsic objection to human genetic manipulation. In fact, in 1930, Pope Pius XI in the encyclical letter *Casti Conubii* stated the following:

What is asserted in favor of the social and eugenic ‘indication’ may and must be accepted, provided lawful and upright methods are employed within the proper limits.⁹ In other words, the ends of eugenics are sensible (though whether descriptively or prescriptively is not clear), but the means for such ends are morally problematic. Human genetic improvement is a good end. The problem is that the means to do this morally were lacking in 1930 – back then the only means were mass incarceration, euthanasia, infanticide, abortion, forced sterilization, control over whom could marry, and so on. But now, with the possibility of gene therapy, a potentially moral means has been developed.

Since 1930, Roman Catholic teaching on genetic manipulation has been repeatedly specified, but nothing invalidates the general sense.¹⁰ Therapy, in principle, is unproblematic¹¹ and enhancement – though looked on with wariness and skepticism – remains debatable.¹² The

⁹ Pope Pius XI, *Casti Conubii* (Vatican, 1930) 66.

¹⁰ See for example, such specifications as: Congregation for the Doctrine of the Faith, *Donum Vitae: Instruction on Respect for Human Life in Its Origin and on the Dignity of Procreation: Replies to Certain Questions of the Day* (Vatican, 1987), International Theological Commission, *Communion and Stewardship: Human Persons Created in the Image of God* (Vatican, 2004) 90, and Congregation for the Doctrine of the Faith, *Instruction Dignitas Personae on Certain Bioethical Questions* (Vatican, 2008).

¹¹ *Communion and Stewardship*, 90, and *Dignitas Personae*, 26, which says: “Procedures used on somatic cells for strictly therapeutic purposes are in principle morally licit.”

¹² “A strictly therapeutic intervention whose explicit objective is the healing of various maladies such as those stemming from deficiencies of chromosomes will, in principle, be considered desirable, provided it is directed to the true promotion of the personal well-being of man and does not infringe on his integrity or worsen his conditions of life. Such an intervention, indeed, would fall within the logic of the Christian moral tradition, as I said when speaking to the Pontifical Academy of Sciences Oct. 23, 1982. But here the question returns. Indeed, it is of great interest to know if an intervention on genetic inheritance that goes beyond the limits of the therapeutic in the strict sense should be regarded likewise as morally acceptable. For this to be verified, several conditions must be respected and certain premises accepted. Allow me to recall some of these.” Whereupon he recounts a list of several

Church still rules out immoral techniques such as contraception, abortion, infanticide, etc., as well as newer techniques such as donor gametes, in-vitro fertilization, preimplantation genetic diagnosis, and so on. But gene therapy, even of the germline (though not with present technology), could be acceptable, given the development of the proper technologies.¹³ Creating a “superman” or “superhuman” is clearly not allowed,¹⁴ but the area between therapy and non-superhuman enhancement remains to be explored, even within the careful circumscriptions provided in various magisterial documents. The Roman Catholic Church has grown in wariness since the time of Pius XI, but because the Church is so committed to healthcare, it remains strongly in favor of whatever good treatments may eventually become available.

Myth 4: The Roman Catholic Church Opposes Letting People Die

If this were true, Roman Catholic hospitals could not discontinue treatment on patients. People know the Roman Catholic Church is pro-life and sometimes individual Catholics are quite vocal in their disagreement with discontinuation of treatment. But rather than looking at particular Catholics and their cases, we ought to look at Catholic hospital policy.

The truth is that this is not a problem in Catholic hospitals. Burdensome and futile treatments are not encouraged much less required. The Roman Catholic Church has a long tradition of allowing people to refuse burdensome or futile treatment. For example, in earlier times a case might have involved a doctor telling a patient to move to a different climate. Would it be a mortal sin for the patient to refuse if this journey far away from home would be burdensome on him or her? No. Life is an intrinsic good, but it is not the only good.

criteria genetic manipulations should meet in order to be morally licit. Pope John Paul II, “Discourse to the Members of the 35th General Assembly of the World Medical Association,” (Vatican, 29 October 1983). Accessed November 28, 2014, available at: <https://www.ewtn.com/library/PAPALDOC/JP2GENMP.htm>

¹³ Currently, two documents provide insight into the tensions in germline therapy: “Germ line genetic engineering with a therapeutic goal in man would in itself be acceptable were it not for the fact that it is hard to imagine how this could be achieved without disproportionate risks especially in the first experimental stage, such as the huge loss of embryos and the incidence of mishaps, and without the use of reproductive techniques. A possible alternative would be the use of gene therapy in the stem cells that produce a man’s sperm, whereby he can beget healthy offspring with his own seed by means of the conjugal act.” *Communion and Stewardship*, 90. “In its current state, germ line cell therapy in all its forms is morally illicit.” *Dignitas Personae*, 26.

¹⁴ “Discourse to the Members of the 35th General Assembly of the World Medical Association” and *Communion and Stewardship*, 91.

A question could arise on what the difference would be between suicide, illicit discontinuation of treatment, and licit discontinuation of treatment given certain types of transhuman existence. Would a purely electronic existence, or otherwise radically altered existence, potentially qualify as “extraordinary,” or “disproportionate,” or impose an “excessive burden,” or “excessive expensive,” and therefore qualify as a medical treatment that is discontinuable?¹⁵ Or would it be more like nutrition and hydration, which are considered basic care, not medical treatment, and are therefore not discontinuable?¹⁶ It seems to me like most conceivable forms of radical life extension, by virtue of their very “radicality,” would fall into the first category, not the second.

With these four myths addressed, what might some real tensions be?

Real Tension 1: The Improbability of Material Immortality

Material immortality requires one of two things: a single-step cure for mortality, e.g. mind uploading, or a continuous parade of treatments to maintain life in the face of every threat imaginable, every life-threatening ailment and disease that exists and every new one that might appear, whether cancer, heart disease, Alzheimer’s, influenza, Ebola, and so on. Not just one cure, but every cure. Additionally, if life is to have quality, non-life-threatening ailments would need curing as well, otherwise we will end up with a situation much like the one we already have, with nursing homes full of people who are alive, but in no condition to fully flourish. We can maintain life, but not health (and this is not what transhumanists desire in any case). Given the complexities of uploading (and that we do not even know how to define problem, e.g., what are “life” and “mind”?), the “parade” option seems most likely, which means medical progress

¹⁵ U.S. Conference of Catholic Bishops, *Ethical and Religious Directives*, 57, accessed on November 26, 2014, available at: <http://www.usccb.org/issues-and-action/human-life-and-dignity/health-care/upload/Ethical-Religious-Directives-Catholic-Health-Care-Services-fifth-edition-2009.pdf>.

¹⁶ Pope John Paul II, “Address to the Participants in the International Congress on ‘Life-Sustaining Treatments and Vegetative State: Scientific Advances and Ethical Dilemmas’” (March 20, 2004), 4, where he stated that “the administration of water and food, even when provided by artificial means, always represents a natural means of preserving life, not a medical act.” See also Congregation for the Doctrine of the Faith, “Responses to Certain Questions of the United States Conference of Catholic Bishops Concerning Artificial Nutrition and Hydration” (August 1, 2007). Cited in the U.S. Conference of Catholic Bishops, *Ethical and Religious Directives*, footnote 40, accessed on November 26, 2014, available at: <http://www.usccb.org/issues-and-action/human-life-and-dignity/health-care/upload/Ethical-Religious-Directives-Catholic-Health-Care-Services-fifth-edition-2009.pdf>.

will look a lot like what we are already doing – and proceed as it already is – incrementally, with “immortality” not being even a remotely realistic possibility.

People should be skeptical of material immortality. People have been peddling it for a long time. That it has not yet been achieved does not mean that it cannot be – after all science and technology create new things all the time – only that it is extremely difficult and perhaps impossible. Inductive strength is on the skeptic’s side. Morally-speaking, the Church might remind us not to be gullible and that lying is a sin. We should not fall for unrealistic claims of material immortality. Likewise, transhumanists should not tell lies about the likelihood of material immortality. Right now any promises for such things are unrealistic and will remain lies for a long time. Aging is extremely complex and not well understood. It is not just going to be figured out next week. There is no philosopher’s stone, elixir of life, or fountain of youth, nor is there even a good map for finding them.

Furthermore, the philosophical problems, and subsequent technological difficulties, with defining life and mind should not be overlooked. How can we expect to create our own immortality if we cannot even define or adequately describe what life is? How can we expect to place human intelligences in a computer when we cannot even define or adequately describe what a mind is? Immortality and artificially supported intelligence are unattainable if we do not even know what we are aiming at. In the absence of defined goals, immortality and intelligence look like very distant concepts indeed.

Real Tension 2: Justice, Access, Inequality, Attitude

Life extension research is *de facto* a quest of the rich, for the rich. Several notable billionaires support radical life extension research.¹⁷ Yet for many of the world’s people reliable access to any kind of healthcare is a much more pressing concern. This tension between radical life-extension as a quest of the rich, and basic healthcare (which might be called “non-radical life-extension”), as a quest of the poor is a serious tension between Catholic morality and

¹⁷ Including, Larry Ellison, Paul F. Glenn, Dmitry Itskov, Peter Thiel, and Sergey Brin, see: Adam Leith Gollner, “The Immortality Financiers: The Billionaires Who Want to Live Forever,” *The Daily Beast*, August 20, 2013, accessed November 24, 2014, available at: <http://www.thedailybeast.com/articles/2013/08/20/the-immortality-financiers-the-billionaires-who-want-to-live-forever.html>

transhumanism. This tension breaks down into at least four parts: justice, access, inequality, and attitude.

Justice gives to each person what they are due. The poor and the rich are both due a reasonable amount of healthcare, with caveats on geographic location, the necessity of rationing scarce resources, etc. No one is due an infinite amount of healthcare, which is essentially what proponents of radical life extension are pursuing. In a world where every day thousands of deaths could easily be prevented for relatively little expense, it is not fair to spend millions on the hopes of the very few rich who want to consume infinite healthcare resources.

Access issues are closely related to justice issues. Whereas justice tries to set up a system to distribute goods fairly, access tries to implement that justice and make goods available as best as can be done. If radical life extension becomes available, it will only be affordable to the rich. Even if radical life extension is not immediately “infinitely” expensive, it becomes so in the long term, if one is seeking infinite life. And this is not only a problem of future infinities; the money going to radical life extension research could save lives now. This is not to discount the valid research being done into all sorts of diseases that may eventually, hopefully, “trickle down” to the world’s poor, but there is a qualitative difference between trying to cure a particular type of cancer and trying to live forever. The first is a quest with an end, the second is not. The first has barriers to success that are some finite height, the second has, over infinite time, infinitely high barriers to success. Access to radical life extension, even if possible, will always be the domain of the rich. Given that fact, it would be much more reasonable and just to work on developing clean drinking water, sewer systems, basic health clinics, and so on, to most of the world’s poor who lack access to what many people take for granted.

Radical life extension will exacerbate inequality, possibly to an infinite extent. One of the great social equalizers is that we all die, and when we die, we lose our wealth. Our wealth may pass on to others or be taken by the government in taxes, but it does not stay with us. Radical life extension would change that. If the rich use their wealth to live indefinitely (assuming their wealth is not completely exhausted in pursuing this end, and perhaps one solution to the wealth and life extension inequality problem would be an immense tax on the treatment – even 100%, which would be analogous to “economic death”) then they will likely continue to grow in wealth, gradually increasing their share of resources more and more. Furthermore, they will be incentivized to gain wealth because they know that their lives depend on their riches. Those

incapable of affording life extension treatments will die and lose their wealth as all humans have done for all of history, while the immortal rich will gradually gain more and more wealth.

Lastly, underlying these problems is a very deep problem of attitude. Some people feel that they deserve more life than others, that not all deserve access even to low levels of healthcare. With regards to social inequality, some do not see the grave evils they must perpetuate (i.e. maintaining an unequal economic system) if they desire to live forever. Hiding behind all of this, I think, is not just a love of life, but even moreso a fear of death. No doubt some people seek life extension to avoid facing the reality of death, or to avoid thinking about God, judgment, etc. I am sure some transhumanists sincerely desire that radical life extension should become available to all, and I respect that position. If it were available to all, there would be no problems of injustice, lack of access, inequality, and the attitude of sharing with all is a noble one. But given the realities of what life extension is likely to be – a demand for potentially infinite healthcare costs – the likelihood of it becoming widely available, barring cheap mind uploading or other improbable inexpensive solutions, is low.

All four of these are serious objections, but not killer ones – transhumanism could exist in a way that satisfies them. While the social questions might be hard to solve, the attitude question might be even harder, given current cultural climate of transhumanism which valorizes selfishness and libertarianism.

Real Tension 3: The Impossibility of Human Omnipotence

The idea that humans can or should seek omnipotence has been mentioned in previous Transhuman Visions conferences and in transhumanist writings. The only way to fully protect one's life is to move towards having as much power as possible. For example, Zoltan Istvan has remarked that humans ought to try to become omnipotent, and coined the word “omnipotender” for one who pursues this end.¹⁸ This is impossible and reflects a deep misunderstanding of the concept of omnipotence.

One might first ask why immortality would require omnipotence. As a first approximation of a response, immortality would require omnipotence because so much power is already on the side of death. Entropy drags everything towards heat death. Disorder increases,

¹⁸ Zoltan Istvan, *The Transhumanist Wager* (San Francisco: Futurity Imagine Media, 2013) 80.

life requires order, and so power is needed to halt the second law of thermodynamics, among other things. One must be more powerful than death, more powerful than nature, more powerful than the laws of nature. One must be able to write the laws of nature. True immortality requires omnipotence.

Omnipotence, however, is an impossible goal for humanity. One can seek great power, much more power than any human has ever before possessed, but the word “omnipotence” is not the right word to use for what is being sought. Omnipotence is a concept which simply cannot apply to humans or transhumans, it can only apply to a singular deity. Omnipotence is the possession of infinite power. All power, in fact (there would none left for anyone else). Infinity is infinitely far from anything finite. A finite being cannot approach it, it always remains infinitely distant. That is just on the conceptual level. On the practical level, omnipotence has a temporal aspect which in a second way completely prevents the approach of anything finite and temporal. Omnipotence requires not just *being able to do everything*. *One must already be everything*. One would need to be self-causing and self-existing, among other things.

God exists – that is what God does. God is the act of existing. Being outside of time, God contains no potential, no power – all of God’s power is already actualized. Therefore an entity cannot *become* omnipotent. One can only *already be* omnipotent. The concept simply cannot be applied to humans. In fact, the word “omnipotent” is something of a misnomer even as applied to God – as pure act, God is “omniactual,” not omnipotent. God has no unactualized potencies. It is only from the perspective of temporal beings that God can be called omnipotent. Returning to humans, even used analogously, as in “I am like a god,” the concept is still very dis-analogous. The distance between a human, or any created being, and Absolute Being is infinite. Whether one doubles one’s power or increases it ten-million-fold the distance to omnipotence is still infinite.

But these problems do not mean that the idea of human and transhuman power isn’t worth exploring. Indeed, the philosophical and theological aspects of humanity’s growing power should be explored, because contemporary human power is becoming qualitatively different from what it was in previous ages. The nature and scope of human action and power has changed – this is a basic assertion of the philosopher Hans Jonas, and it is the main reason he wrote his book *The Imperative of Responsibility*, which discusses how humans should now act with respect

to avoiding human extinction.¹⁹ The word “omnipotence” is not the right one to describe human power, but is there another word that might be more appropriate? Jonas doesn’t suggest a word, but I think we need a word for it.

For this new situation of human power I suggest the word “anthropotence.”²⁰ *Anthropo* from the Greek meaning “human,” and *potence* from the Latin meaning “power.” This measure of power can be applied to both individual and whole-species power. I will start with individuals, and then consider whole-species power. Among individual humans, anthropotence would measure relative power. The avg. human’s score would be approximately 1/7,000,000,000 of humanity’s total score. But in reality, of course, some humans are relatively much more powerful than others, whether by wealth, charisma, political influence, intelligence, work ethic, or otherwise. Anthropotence, as an abstract measure of human power, is hard or impossible to quantify, but it might relate to such capacities as ability to produce political or military actions, total wealth, total amount of energy (joules) at one’s disposal, and so on. If one chose to use total energy as a measure of power (e.g., because wealth and political-military power can both be converted into energy) then this provides a direct point to connect the concept of anthropotence to the Russian astronomer Nikolai Kardashev’s scale of civilizations.²¹

On Kardashev’s scale, as reinterpreted logarithmically by Carl Sagan, Type I civilizations control planetary scales of energy (10^{16}W), Type II solar scales of energy (10^{26}W), and Type III galactic scales (10^{36}W).²² Carl Sagan estimated in 1973 that human civilization was at that time, in his reinterpretation of the scale, Type 0.7.²³ As it is a logarithmic scale, humanity has only marginally exceeded this number now, despite roughly doubling world energy consumption.²⁴

¹⁹ Hans Jonas, *The Imperative of Responsibility: In Search for an Ethics for the Technological Age* (Chicago: University of Chicago Press, 1984) 1-12.

²⁰ Which might further remind us of the word “anthropocene” which has recently been proposed as the name for the geologic era within which humanity has begun altering the Earth.

²¹ Nikolai Kardashev, “Transmission of Information by Extraterrestrial Civilizations,” *Soviet Astronomy* 8 (1964): 217.

²² Carl Sagan parsed Kardashev’s levels with 10 billion as the convenient distance between levels. Carl Sagan, *The Cosmic Connection: An Extraterrestrial Perspective* (New York: Dell Publishing, 1973) 181-2.

²³ Ibid.

²⁴ Worldwide energy consumption grew from 283 to 520 quadrillion BTU/year from 1980 to 2012 (1980 is unfortunately the first year and 2012 the last year for which data is available on the EIA website). U.S. Energy Information Administration, “International Energy Statistics,” website, accessed October 24, 2014, available at:

True omnipotence would be beyond Type III. And since we have no conceivable way to achieve immortality or radical life extension at this time, even if we put all of humanity's resources into doing such a thing, we might assume that a type 0.7 civilization lacks the resources to radically extend human life.

Of course, life extension is not merely a matter of energy, but rather one of knowledge and technology, so perhaps we could achieve such ends even without such levels of energy. But then that raises the question of how relevant power is to immortality in the first place. Perhaps the transhumanist interest in omnipotence is not merely for the possession of life, but also for the defense of their own life, perhaps at the expense of others in a competitive world where not all can have access to certain scarce resources, such as immortality. In that case, the desire for power is more transparently not for absolute power over death, but relative power over other humans, which does raise some additional moral questions of the endeavor.

In any case, perhaps someday one human might control Type I or II levels of power (which would be quite impressive, yet still might not allow immortality), but before that, humanity as a whole might want to get beyond Type 0.

Real Tension 4: The Dangers of Pursuing Utopia

In the words of Roen Horn: "We are trying to create paradise with technology and we can do this!"²⁵ Technological utopia has become a goal for some transhumanists, and it might make us interested in what "utopia" actually means. The word "utopia" was coined by a Catholic, Saint Thomas More, who was beheaded by King Henry VIII during the English Reformation. When he wrote the book by that name he explained that it was a Greek pun, meaning both "good place" and "no place," thus revealing the deep ambiguity that he found in the concept. The world has seen a lot of utopian visions come and go, and they often turn hellish, as various Communist states have exemplified. Therefore utopians need to be careful. Utopia, being an infinite good, can be used to justify any finite evil. The same problem exists with Heaven, but Christians are explicitly forbidden to "do evil that good may come of it" (Romans 3:8), while some other philosophies and worldviews do not have such scruples.

<http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=44&pid=44&aid=2&cid=regions&syid=1980&eyid=2012&unit=QBTU>

²⁵ "Roen Horn 1," minute 12:45.

As an infinite good, the belief in a future utopia can imply that our current state is so bad as to be relatively worthless and therefore expendable. Surely this is an overly pessimistic view of contemporary life; life is not perfect, but it certainly could be much worse. Losing what goods we already have is what is at risk with utopian experiments which allow the infinitely good end to justify finitely evil means. Not all transhumanists advocate this, in fact, I think most do not. But some do.²⁶ Are we really living in such bad conditions? Is one's own mortality so frightening as to justify doing any, or every, evil in order to hold it off? And, perhaps most blatantly, is the probability of the infinite reward high enough to justify the risks to the goods we already have? The infinite goods promised by transhumanism are highly improbable, approaching zero.

At the February 1st Transhuman Visions conference, Aubrey de Grey talked about broadening the appeal of radical life extension.²⁷ But if it is the case that transhumanists are so fearful of death and so obsessed with their own immortality that they will sacrifice anything in order to achieve it, then transhumanism will never gain popularity because such a stance is cowardly, narcissistic, and sociopathic all at once. As I said, most transhumanists do not hold this opinion, but those that do endanger transhumanism's public perception. The dystopian vision of rule by sociopaths can have very little popular appeal, unless you believe that you will be one of the ruling sociopaths, or, perhaps, the only one.

As an interesting complexity, if transhuman utopia is an infinite good capable of justifying anything in order to have it, then dystopia or extinction would be akin to infinite evils also capable of justifying anything to stop them. This presents major potential for conflict, especially if the conflict is between those who find transhumanism a utopian vision and those

²⁶ Zoltan Istvan's character Jethro Knights in *The Transhumanist Wager* represents this perspective quite well with his "humanicide formula" and while Istvan himself has denied that he could follow his character to such an extent (though Istvan does ponder the edges of what would be acceptable evils, such as banning anti-transhumanist speech), he contends that it is a logical course of action, and others, such as Chris Armstrong, have begun to advocate such things, as typified by the claim "Extraordinary aims require extraordinary expedience." Istvan has said "*The Transhumanist Wager* is a message from the future. If you don't lose the weakness of your species, your species will not survive. You must embrace a new you — a fiercer, bolder you. Otherwise you will be no match for your own inventions" (quoted on Armstrong's website). See Chris T. Armstrong, *At Any Cost: A Guide to The Transhumanist Wager and the Ideas of Zoltan Istvan*, book-in-progress and website, accessed November 23, 2014, available at: <http://transhumanistwagerguide.com/essays/>

²⁷ Aubrey de Grey, "Can Our Messaging Be Improved?" Transhuman Visions Conference, Fort Mason, San Francisco, February 1, 2014, accessed November 29, 2014, video available at: https://www.youtube.com/watch?v=5Xy09S_sE4o&index=8&list=PLeMMREuUaUQAVMdmhLO5pJJaJoYyRi4-2

who find it dystopian or think it risks extinction. If two groups decide that infinite goods and evils are at stake, it becomes an irresolvable conflict with infinite stakes, a recipe for war and annihilation. I am not saying this is the case or will become the case, only that in the future we may face some very difficult problems. This raises the question of catastrophic and existential risks.²⁸

Existential risk should be a bigger concern to the H+ community; perhaps the biggest concern of all.²⁹ The risk equation states:

$$\text{RISK} = \text{HARM} \times \text{PROBABILITY}$$

For any unacceptable harm, whether human extinction or your own death, if the probability is non-zero, then the risk is too high. In other words, if the harm qualifies as an infinite harm, then anything other than zero in the probability creates an unacceptable, infinite, risk. Even a zero still leaves the risk indeterminate.

As we grow in technological power, the risks of dystopian totalitarianism, global catastrophe, civilizational collapse, and extinction grow. Almost needless to say, transhuman life extension requires a technological civilization to support it. Without an advanced technological civilization, one more advanced than today, transhumanism is gone. And yet transhumanism also requires advances in technology, and perhaps the same ones that will themselves threaten catastrophe, such as synthetic biology, artificial intelligence, and nanotechnology.

How we navigate these technological risks will be of ultimate interest to humanity, and transhumanity (should it come to pass), on this planet. Perhaps even gaining the knowledge of these existentially dangerous technologies is itself too dangerous.³⁰ In that case transhumanism might need to give up its aspirations of immortality, unless they can be pursued in ways that do not involve existentially risky technology.

²⁸ As defined by Nick Bostrom, "Existential Risks: Analyzing Human Extinction Scenarios and Related Hazards," *Journal of Evolution and Technology* 9 (March 2002).

²⁹ To his credit, Hank Pellisier's Brighter Brains Institute discussed these topics at the "Global Existential Risks & Radical Futures," Transhuman Visions Conference, June 14, 2014, Piedmont, CA. The conference description and schedule are available at his Brighter Brains website, accessed November 29, 2014, available at: <http://brighterbrains.org/articles/entry/global-existential-risks-radical-futures-conference-june-14>

³⁰ Leon R. Kass, "Forbidding Science: Some Beginning Reflections," *Science and Engineering Ethics* 15 (2009): 271-282.

In my opinion, the most likely future scenario is that human lifespan will gradually continue to increase, perhaps to an average of more than 100 years in the next century, but there will be no longevity escape velocity, and cryonics and uploading will not be able to “save” us. This is with the proviso that we still have a civilization and species at all. As long as rogue individuals, much less states, exist, there is especially no safety from self-propagating disasters, such as those spawned by computer viruses, artificial intelligence, nanotechnology, or synthetic biology.

Those who want to live forever, therefore, must figure out how to solve North Korea. They are dangerous and unpredictable, as are thousands of other rogue individuals and groups, whether lone computer hackers, terrorists like the 2001 anthrax attacker, or members of the so-called Islamic State in Iraq and Syria, ISIS. Compared to those threats, with regards to life extension, transhumanists and Roman Catholics should be very close allies.

Conclusion

In conclusion, the sources of tension which transhumanists have raised with Christianity may not be the real sources of tension. There is nothing intrinsically wrong with extending human life. But there may be some very wrong associated problems. The questions are not so much about whether we should extend life (we should) or allow people to die (it is permissible), but about the improbability of material immortality, the injustice of lack of access to life-extension, the impossibility of omnipotence, and the dangers of utopianism. Clarifying these will be of benefit to both Christianity and transhumanism.

The best reason to extend human life is for the sake of love of God and neighbor.³¹ For Christians, that is what life is all about. If our longer lives help us to glorify God, then we do well. If our longer lives help us to love each other and help each other, then we do well. If transhumanists can agree with Christians on just the secular part of that, then there are clear paths forward for communication and perhaps even common cause.

Lastly, I think we should consider the role of theology. If transhumanists want to become like gods, whatever that might mean, they need to talk to theologians. Theology has been studying God or gods for a long time. Transhumanists who are atheists might not think theology

³¹ See Matt. 22:37-40, Mark 12:30-31, and Luke 10:27, all combining Lev. 19:18 and Deut. 6:5.

has an object, but if they are trying to become gods, then they are trying to give theology an object. Theologians should appreciate their efforts and gladly offer advice.

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