



## REJUVENATION RE: RELIGION

FRANCO CORTESE

*Research Scientist: ELPIs Foundation for Indefinite Lifespans.  
Affiliate Scholar: Institute for Ethics & Emerging Technologies.  
Fellow: Brighter Brains Institute. Ambassador: The Seasteading Institute.  
Assistant Editor: Ria University Press.*

*“Our hope of immortality does not come from any religions,  
but nearly all religions come from that hope.”*

~ Robert Green Ingersoll’s Views on Politics and Religion. *Chicago Times*, 1879 ~

Franco Cortese contemplates how the life extension movement is not in contradiction with the beliefs or central values of religious traditions, but an overlap in the common aim to reduce suffering in the world.

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Is religion at odds with the life extension movement? A resounding yes and no. Religion constitutes at once perhaps the best historical validation of the widespread, longstanding and deep-rooted desirability of indefinite longevity, as well as a non-negligible detriment to the contemporary progress in the field of biomedical gerontology. Insofar as religion was created to appeal to humanity’s longing for indefinite longevity, or more precisely for the absence of involuntary and irreversible death, then religion is at odds with *itself*.

The widespread belief in some form of an afterlife (wherein personal continuity with the self is maintained past physical death) found in the large majority of both contemporary and ancient religions exemplifies the uniquely and nearly-ubiquitously human desire for an indefinite lifespan and the complete absence of involuntary death. At the same time, the belief that one’s self *does* survive physical death also removes perhaps the foremost motivator for hastening progress in the field of life extension: namely, the belief that physical death entails the complete and utter end of the self. If a person believes that they will survive physical death to live in an afterlife, then what real need is there to prolong one’s physical lifetime, if physical death isn’t really death, in the sense of the complete and irreversible discontinuation of the self, at all? Belief

in personal continuity through and past physical death directly undermines the central impetus fueling progress in the field of biomedical gerontology.



On the other hand, religion may have been the largest medium of positive, humanitarian social change aimed towards the betterment of society in the whole of recorded history prior to the Enlightenment (excepting the major wars and acts of cruelty and genocide waged in its name). The contemporary life extension movement can be characterized as a humanitarian movement aimed at reducing involuntary suffering in the world. Indeed, due to the number of lives claimed per day by age-correlated causes of functional decline (on the order of 100,000 per day, which scales to 3 million per month and 36.5 million per year), the life extension movement may become *the* most effective way to eliminate contemporary suffering in the world. Thus religion and the contemporary life extension movement have some significant motivational overlap and continuity-of-impetus, in that they are both aimed at the reduction of involuntary suffering in the world.

Furthermore, Abrahamic, Buddhist, Hindu and Chinese religious texts alike abound with instances describing very long-lived people, suggesting that most religions are not axiomatically at odds with life extension in the physical world. This suggests that life spans significantly greater than the current maximum lifespan attainable in humans is *not* in contradiction with the beliefs *or* central values of the Abrahamic, Buddhist, Hindu and Chinese religious traditions. In ancient Chinese religion and philosophy for example, we find not only a recurrent desire for personal immortality, but instances where specific methodological means were applied in an attempt to prolong one's *physical*, earthly life:

“Another driving force behind Qin encouragement of religious activities [circa. 200 B.C.E] was the first Emperor's personal quest for immortality. We are told that in this quest he sent groups of young people across the China Sea to look for such islands of the immortals as Penglai...

...An explicit concern for long life (*shou*) had already appeared on early Zhou bronzes and in poems in the *Scripture of Odes*. Beginning in the eighth century B.C.E. we find terms expressing a hope for immortality, such as 'no death,' 'transcending the world,' and 'becoming an immortal.' By the fourth century B.C.E. there is evidence of an active quest for immortality through a variety of means, including exercises imitating the movements of long-lived animals, diets enforcing abstinence from grains, the use of food vessels inscribed with characters indicating longevity, the ingestion of herbs and chemicals, and petitions for the aid of immortals residing in mountains or distant paradises. It was in this context that Chinese alchemy began. The alchemical quest became the most dramatic form of the quest to transcend death, growing in popularity during the Qin (221-207 B.C.E.) and Western Han (202 B.C.E.-9 C.E.) dynasties...

...There was no doctrine of an eternal, immaterial soul to fall back on as in India or the Hellenistic world, so the only alternative was physical immortality. In China this tradition continued to develop through the Eastern (Latter) Han dynasty (25-220 C.E.) and produced texts of its own full of recipes, techniques, and moral exhortations. As such, it became one of the major sources of the Daoist religion that emerged in the second century C.E...<sup>1</sup>

We see both practical attempts at increasing one's lifespan in the physical world, as in the examples outlined above, as well as attempts to achieve a type of immortality more similar to the conception of passage to an afterlife-as-such found in western religions:

... Although in some passages of the *Zhuangzi* an enlightened perspective leads to acceptance of death, a few others provide poetic visions of immortals, those who have transcended death by merging with the Dao. One of the terms Zhuangzi uses for these individuals is *zhenren*, 'perfected people,' a term that later became important in the fully developed Daoist religion that took shape after the second century C.E. These indications of immortality in the earliest Daoist texts provided the chief point of contact between the classical tradition and those who sought immortality by more direct means, including later practitioners of Daoist religion...



<sup>1</sup> Adler, J.A. (2005). *Chinese Religions: An Overview*. *Encyclopedia of Religion*, Detroit: Macmillan Reference USA.

One can also find belief in extremely long-lived people in later Chinese philosophy and religion as well, such as in “The Complete Works of the Two Che’engs” (c. 1033-110):

“*Question:* About the theory of immortals – are there such beings?

*Answer:* ... if you mean people living in the mountain forests to preserve their physical form and to imbibe energy to prolong life, then there are.”<sup>2</sup>

This suggests, firstly, that life extension was actively practiced and sought as an end in itself by at least some ancient Chinese religious sects and philosophies (not to mention by the first Emperor of the Qin Dynasty himself) and secondly, that *physical* indefinite longevity, as opposed to metaphysical immortality in an afterlife, is compatible with the views and beliefs of those ancient Chinese religious sects and philosophies known to have practiced forms of practical life extension in the physical world.

We find even starker instances of extremely long-lived people in Buddhist religious texts. In the *Anguttara Nikaya*<sup>3</sup>, for instance, which is the fourth nikaya in the Sutta Pitaka (one of the “three baskets” making up the Pali Tipitaka in Theravada Buddhism), there are several types of “heaven” described, all of which are located in the physical universe. The inhabitants, “deva” or “denizens” of these “heavens” have varying life spans. Devas of Parinirmita-vaśavartin live 9,216,000,000 years; devas of Nimmānarati live 2,284,000,000 years; devas of Tāvātimsa live 36,000,000 years; devas of Tusita live 576,000,000 years; and the devas of Yāma live 1,444,000,000 years.

The Hindu religious tradition also abounds with not only instances of very long-lived people but also, like the Chinese religious tradition, specific attempts to practice methodological means of life extension. Ilia Stambler explicates the convergences between longevity and the Indian religious, philosophical and cultural tradition adeptly in “Longevity and the Indian Tradition”<sup>4</sup>:

“Book 9 of The Rigveda<sup>5</sup> (c. 1700-1100 BCE) is dedicated to praises of the immortality-giving ‘Soma’ plant. (The plant is called ‘Haoma’ in ancient Iranian (Aryan) religious sources, such as Avesta, (c. 1200-200 BCE.). In India, the immortal Rishis, Arhats, and the Ciranjivas (the ‘extremely long-lived persons’) are revered to the present. Their extreme longevity is often attributed to ‘Amrit’ – अमृत – or the ‘nectar of immortality’ – a revered and desired substance. The

<sup>2</sup> Chan, W. (1963). *A Source Book in Chinese Philosophy*. Princeton, NJ: Princeton University Press.

<sup>3</sup> Bodhi, B, & Nyanaponika, T. (2000). *Numerical Discourses of the Buddha: An Anthology of Suttas from the Anguttara Nikaya*. Maryland: Altamira Press.

<sup>4</sup> Stambler, I. (June, 2013). Longevity and the Indian Tradition. *India Future Society*. Retrieved from <http://indiafuturesociety.org/longevity-and-the-indian-tradition/>.

<sup>5</sup> O’Flaherty, W.D. Translator (1981). *The Rig Veda: An Anthology: One Hundred and Eight Hymns*. England: Penguin Books.

traditional Indian medicine of Ayurveda <sup>6,7</sup>, or ‘the science of (long) life,’ includes a special field of Rasayana <sup>8</sup>, mainly dedicated to rejuvenation.

Stambler observes here that specific parts of the Indian religious tradition appear to have fueled, or at least supported, some of the earliest historical embodiments (i.e. originating c. 100-300 BCE) of a rejuvenation science. This would suggest that, in the case of the Indian religious tradition, religion supported and even helped facilitate the aims of the life extension movement and discipline.

According to the *Sushruta Samhita* [c. 300-400 BCE], human life can be normally prolonged to 100 years <sup>9</sup>. Yet, with the use of certain Rasayana remedies (such as Brahmi Rasayana and Vidanga-Kalpa), life can be prolonged to 500 or 800 years. And the use of the “Soma plant, the lord of all medicinal herbs [24 candidate plants are named], is followed by rejuvenation of the system of its user and enables him to witness ten thousand summers on earth in the full enjoyment of a new (youthful) body.”

Moreover, one of the plants cited as being able to prolong life “up to 500 or 800 years”, namely the Brahmi Rasayana, has been shown in contemporary scientific studies to possess some anti-aging benefits, suggesting that the teachings described in the *Sushruta Samhita* and the *Charaka Samhita* constituted the beginnings of a veritable life extension science, or at least that they were more than simply hype <sup>10</sup>.

“Also according to another foundational text of Ayurveda, *The Charaka Samhita* (Charaka’s Compilation of Knowledge, c. 300-100 BCE), the normal human life-span is 100 years. Yet, the users of an Amalaka Rasayana could live many hundreds of years and the users of the Amalakayasa Brahma Rasayana could reach the life span of 1000 years. The great sages, who grasped perfectly the knowledge of Ayurveda, ‘attained the highest well-being and nonperishable life-span.’”



<sup>6</sup> Patwardhan, B., Warude, D., Pushpangadan, P., & Bhatt, N., (2005). Ayurveda and Traditional Chinese Medicine: A Comparative Overview. *Evidence-Based Complementary and Alternative Medicine*, 2(4), pp. 465-473.

<sup>7</sup> Sharma, P. C., Yelne, M. B., Dennis, J. & Joshi, A. (2002). Database on Medicinal Plants Used in Ayurveda & Siddha. Vol. 5. Central Council for Research in Ayurveda & Siddha, Dept. of ISM & H, Min. of Health & Family Welfare, Government of India.

<sup>8</sup> Puri, H. S. (2003). *Rasayana: Ayurvedic Herbs for Longevity and Rejuvenation*. Oxford, New York: CRC Press.

<sup>9</sup> Bhishagratna, K. L. (1907). *The Sushruta Samhita*. Periodical, Vol. 1. Calcutta: India.

<sup>10</sup> Joshi, H., & Parle, M. (2006). Brahmi Rasayana Improves Learning and Memory in Mice. *Evidence-Based Complementary and Alternative Medicine*, 3(1), pp. 79-85.

Stambler also notes the concept and practice of life extension in the Buddhist religious tradition as well:

“The Great Buddha who grants Longevity is Amitābha, the Buddha of Infinite Light, also known as Amitāyus, the Buddha of Infinite Life. Those who invoke him will reach longevity in this realm, and will be reborn in Amitabha’s PureLand (Sukhāvatī or Dewachen in Tibetan Buddhism) where they will enjoy virtually unlimited longevity. This pure and egalitarian land of longevity was created by Amitabha’s avowed devotion and perseverance. One of the mantras in Amitabha’s praise is “*Om amrita teje hara hum*” (Om save us in the glory of the Deathless One hum). Many Buddhist mantras for longevity are recited, dedicated to the great healers of old, so that a portal to their wisdom may be opened and through their compassion, suffering will be abolished and health and longevity reached in this world.”

We see far less emphasis on depicting immortality as desirable and attainable through the right variety of religious practices and/or moral codes in Norse religion and mythology. We *do*, however, find in it conceptions of life after death, as well as the notion of significantly prolonged life in the physical world:

“*Haustlöng* [c. 1000] calls Idun [the character in Norse Mythology thought to grant eternal life to other Norse gods] the ‘maiden who understood the eternal life of the aesir’ but does not mention the apples, in Snorri’s version of the story Idun’s apples clearly function as a symbol of the immortality of the gods. Indeed, when he presents Idun in *Gylfaginning*, Snorri says she is the wife of Bragi: ‘She keeps in her bag the apples that the gods are to chew when they grow old, and then all become young again, and so shall it be until Ragnarök.’”<sup>11</sup>



In both depictions of Idun we see the prolongation of life in the physical world contingent on specific factors (which is an aspect characterizing indefinite life extension),

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<sup>11</sup> Lindow, J. (2001). *Norse Mythology: A Guide to Gods, Heroes, Rituals, and Beliefs*. Oxford, New York: Oxford University Press.

the contingent factor in this case being whether Idun decides to grant one eternal life or not. Prolongation of life is in this case dependent on the carrying out of specific methodological practices, and this depiction of life extension in Norse legend bears more similarity to contemporary existing and proposed methods of life extension than, for instance, automatic and non-contingent immortality granted via passage to an afterlife.

But the second depiction significantly depicts contingent life extension via specific *material* changes to the body – namely ingesting Idun’s apples. This bears even more similarity to modern approaches to life extension than the first case, in which the prolongation of life was contingent on methodological rather than material therapies.

We find a multitude of particularly long-lived people described in Abrahamic religious texts as well. We also find many instances reifying the often-unspoken desirability of longer life and an end to involuntary death, in the form of passages depicting unending (or sometimes simply extended) life as one of the “rewards” explicitly promised to the faithful upon their salvation (as opposed to being inherent in the promise of an afterlife). The first observation suggests that significantly extended life spans is not in contradiction with Christian belief, values, ethics or cosmology. The latter observation suggests that the Abrahamic religious tradition in general, and the Christian religious tradition in particular, hold life extension to be desirable, and that it may even constitute one of their fundamental values:

Methuselah is said to have lived 969 years: “And all the days of Methuselah were nine hundred sixty and nine years: and he died”<sup>12</sup>. Indeed, the King James Version Bible lists eight persons aged over 900 when they died: Methuselah, who died at age 969, Adam at 900, Eve at 940, Seth at 912<sup>13</sup>, Enos at 905<sup>14</sup>, Kenan at 910<sup>15</sup>, Jared at 962<sup>16</sup> and Noah at 950<sup>17,18</sup>. The Bible also lists twelve other persons between the ages of 200 and 900, and at least ten persons with a lifespan between 100 and 200: Mahalalel is said to have died at age 895<sup>19</sup>[19], Lemech at age 777<sup>20</sup>, Shem at 600<sup>21</sup>, Eber at age 464<sup>22</sup>, Arpachshad at 438<sup>23</sup>, Salah at 433<sup>24</sup>, Job at 240<sup>25</sup>, Reu at 239<sup>26</sup>, Peleg at 239<sup>27</sup>, Serug at 230<sup>28</sup>, Terah at 205<sup>29</sup>, Isaac at 180<sup>30</sup>, Abraham at 175<sup>31</sup>, Nahor at 148<sup>32</sup>, Jacob at 147<sup>33</sup>, Amram at

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<sup>12</sup> Book of Genesis 5:27, *The Holy Bible*, King James Version.

<sup>13</sup> Book of Genesis 5:8

<sup>14</sup> Book of Genesis 5:11

<sup>15</sup> Book of Genesis 5:14

<sup>16</sup> Book of Genesis 5:20

<sup>17</sup> Book of Genesis 9:29

<sup>18</sup> Qu'ran 29:14

<sup>19</sup> Book of Genesis 5:17

<sup>20</sup> Book of Genesis 5:31

<sup>21</sup> Book of Genesis 11:10-11

<sup>22</sup> Book of Genesis 11:16-17

<sup>23</sup> Book of Genesis 11:12-13

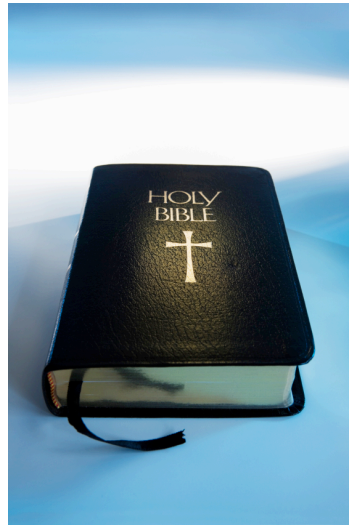
<sup>24</sup> Book of Genesis 11:14-15

<sup>25</sup> Gospel of Job 42:10-17

<sup>26</sup> Book of Genesis 11:20-21

<sup>27</sup> Book of Genesis 11:18-19

137<sup>34</sup>, Jehoiada at 130<sup>35</sup>, Sarah at 127<sup>36</sup>, Aaron at 123<sup>37</sup>, Joshua at 110<sup>38</sup> and Joseph at 110<sup>39</sup>.



Furthermore, the concept of definitively indefinite longevity, i.e. biological immortality (as opposed to greatly extended life spans as in the cases above), does not seem to be contradiction with fundamental Christian tenets or values either. In Genesis, for instance, Adam's immortality, as well as the desirability of that immortality, is inherent in the warning God gives him:

“But of the tree of the knowledge of good and evil, thou shalt not eat of it: for in the day that thou eatest thereof thou shalt surely die.”<sup>40</sup>, as well as in the passage “And the serpent said unto the woman, Ye shall not surely die”<sup>41</sup>, again referring to eating from the “tree of the knowledge of good and evil”.

Certain other passages indicate that the “Original Sin” committed by Adam and Eve that cast them out of Eden was the very act that took natural immortality away from humanity: “Wherefore, as by one man sin entered into the world, and death by sin; and so death passed upon all men, for that all have sinned”<sup>42</sup>. Additionally, the belief in an eternal afterlife

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<sup>28</sup> Book of Genesis 11:22-23

<sup>29</sup> Book of Genesis 11:32

<sup>30</sup> Book of Genesis 35:28

<sup>31</sup> Book of Genesis 25:7

<sup>32</sup> Book of Genesis 11:24-25

<sup>33</sup> Book of Genesis 47:28

<sup>34</sup> Book of Exodus 6:20

<sup>35</sup> Gospel of 2 Chronicles 24:15

<sup>36</sup> Book of Genesis 23:1

<sup>37</sup> Gospel of Numbers 33:39

<sup>38</sup> Gospel of Joshua 24:29

<sup>39</sup> Book of Genesis 50:26

<sup>40</sup> Book of Genesis 2:17

<sup>41</sup> Book of Genesis 3:4

<sup>42</sup> Gospel of Romans 5:12

exemplified by most sects of the Christian religious tradition also indicates that literal immortality, and not just greatly extended “mortal” life spans, is compatible with Christian beliefs and values as well.

We also see an emphasis on religion helping heal the sick and diseased in Christianity, which parallels the co-development of the ancient Indian tradition of medical rejuvenation (rasayana) and the ancient Indian religious tradition. Some of the most well known biblical passages regarding Jesus are about how he healed lepers and the blind. We also see the healing of sickness and disease depicted as a reward promised to the faithful.

“And he went throughout all Galilee, teaching in their synagogues and proclaiming the gospel of the kingdom and healing every disease and every affliction among the people.”<sup>43</sup> “And he called to him his twelve disciples and gave them authority over unclean spirits, to cast them out, and to heal every disease and every affliction”<sup>44</sup>. “Heal the sick, raise the dead, cleanse lepers, cast out demons. You received without paying; give without pay”<sup>45</sup>. “When the crowds learned it, they followed him, and he welcomed them and spoke to them of the kingdom of God and cured those who had need of healing”<sup>46</sup>. “You shall serve the Lord your God, and he will bless your bread and your water, and I will take sickness away from among you”<sup>47</sup>. “Is anyone among you sick? Let him call for the elders of the church, and let them pray over him, anointing him with oil in the name of the Lord. And the prayer of faith will save the one who is sick, and the Lord will raise him up. And if he has committed sins, he will be forgiven”<sup>48</sup>. “And these signs will accompany those who believe: in my name they will cast out demons; they will speak in new tongues; they will pick up serpents with their hands; and if they drink any deadly poison, it will not hurt them; they will lay their hands on the sick, and they will recover.”<sup>49</sup>. “Behold, I will bring to it health and healing, and I will heal them and reveal to them abundance of prosperity and security.”<sup>50</sup>. “Now Isaiah had said, ‘Let them take a cake of figs and apply it to the boil, that he may recover’ ”<sup>51</sup>.

In these passages we see both the healing of specific diseases and ailments, as well as immunity to all disease and sickness in general, being promised to the faithful.

Perhaps even *more* contrary to the popular belief that religion is at odds with the contemporary attempt to achieve indefinite life spans is the depiction of life extension as a value and reward in and of itself within the Christian tradition. This can be seen in a number of passages wherein abiding by the moral codes of Christianity is rewarded with longer life. We see

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<sup>43</sup> Gospel of Matthew 4:23

<sup>44</sup> Gospel of Matthew 10:1

<sup>45</sup> Gospel of Matthew 10:8

<sup>46</sup> Gospel of Luke 9:11

<sup>47</sup> Book of Exodus 23:25

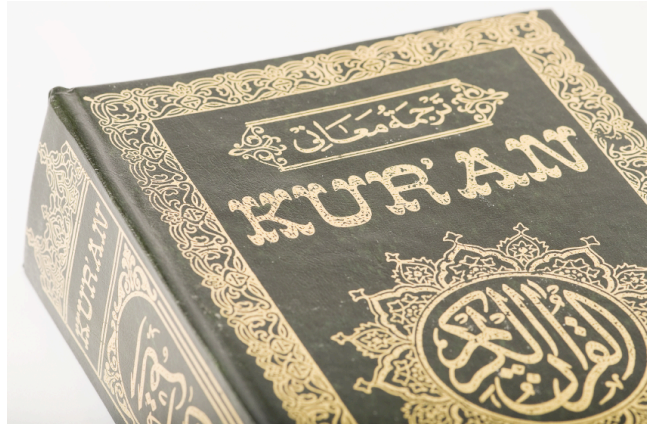
<sup>48</sup> Gospel of James 5:14-15

<sup>49</sup> Gospel of Mark 16:17-18

<sup>50</sup> Gospel of Jeremiah 33:6

<sup>51</sup> Gospel of Isaiah 38:21

this, for instance, in such passages as “I will reward them with long life; I will save them.”<sup>52</sup>, and “He asked life of thee, and thou gavest it him, even length of days for ever and ever”<sup>53</sup>. The previous passages can be interpreted as referring to immortality in the afterlife, which nonetheless still reifies the desirability of indefinite life spans and the avoidance of involuntary death at the heart of the contemporary life extension movement. But we see life extension in the physical world, as opposed to immortality in the afterlife, being offered as a reward for the faithful as well. We see this in such passages as “The fear of the Lord prolongs life, but the years of the wicked will be short.”<sup>54</sup>, and “Honor your father and your mother, that your days may be long in the land that the Lord your God is giving you”<sup>55</sup>.



Passages locating life extension in one’s “mortal life” as a value and reward in and of itself, as characterized by the previous passages, are by contrast much less frequent in the Qur’an. We do find long-lived people in the Qur’an, however, especially regarding personages also described in the Bible and the Torah, like Moses and Noah: “And We certainly sent Noah to his people, and he remained among them a thousand years minus fifty years, and the flood seized them while they were wrongdoers”<sup>56</sup>. Indeed, because the longest-living personages in the Bible occurred in Genesis, and all constellating around the first half of the First Testament, the large majority of the long-lived personages (from the Bible) that were previously cited also apply to Judaism and Islam, which along with Christianity constitute the Abrahamic religious tradition. The concept of both immortality and prolonged life spans also abound in the religious and mythical traditions of Ancient Greece and Rome. Here we find not only immortal deities (e.g. Aphrodite, Apollo, Ares, Artemis, Athena, Demeter, Dionysus, Hades, Hephaestus, Hera, Hermes, Hestia, Poseidon, Zeus, and Iapetus), but we also find interaction between mortals and the immortal deities. For instance, Greek deities were said to be able to procreate with mortals to form demigods, who were able to possess some of the powers of the gods, but who were still ultimately mortal and bound to die.

We also find the notion of immortality in the physical world in the Iranian mythological and religious tradition:

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<sup>52</sup> Book of Psalm 91:16

<sup>53</sup> Book of Psalm 21:4

<sup>54</sup> Gospel of Proverb 10:27

<sup>55</sup> Book of Exodus 20:12

<sup>56</sup> Qu’ran 29:14

In ancient Iranian tradition, immortals are the ever-lasting individuals who continue their life after its normal earthly period in a state of perpetual sleep or hiding; they are to appear on Resurrection Day to assist the saviour to save all people. In Band Heš, it is mentioned that fifteen pious men and fifteen pious women on Resurrection Day will assist the saviour, including Toos, Kayxosrow, Giv, Pašutan, etc ... Toos is among those who, along with Fariboorz and Giv, accompany Kayxosrow in his final disappearance; this indicates Zoroastrian's belief in Toos' immortality, as Toos is considered one of the immortals in Pahlavi religious texts as well <sup>57</sup>.

Ancient Iranian religious texts (as well a geographically-related religious texts) also feature mortals being granted immortality by immortal deities and “angels”:

In Farškard, Saošyant (the Zoroastrian World Saviour) sets foot on the earth. When thirty, he is appointed as the prophet Mazdesina and his presence destroys Ahriman (the evil spirit). The immortal figures such as Kayxosrow, Giv, Pašutan, Garšasb and Toos assist Saošyant in the renovation of the world... According to Avesta texts, Kayxosrow is immune from sickness and death and monarchy becomes his legitimate right

According to the Yašt... the prophet Zoroaster praises Kaygoštasb in the following words: “you shall be immune to sickness and death like Kayxosrow”... Likewise, in Pahlavi texts, Kayxosrow is one of the immortals and resides in Gang Castle and sits on his throne, invisible to all eyes; and when Resurrection approaches, he and Saošyant would meet each other; Kayxosrow will be among the heroes who assist Saošyant in the war in the time of Resurrection.

Ghoštasb, after converting to Zoroastrianism, wants to know of his place in Eden. Three angels appear at his court... The angels assure them that God is their protector and would ensure their victory over the enemy. The King's request for knowing of his place in the Eden is granted; the angels also award immortality to his son, Pašutan... According to Band Heš, Ayriraθ is one of the immortals of Zoroastrians... In Pahlavi texts, Yašt Faryan is mentioned as an Immortal. In Band Heš, Zand, and Homan Yasen, Zoroaster asks Ahura Mazda to give him immortality and requests of Ahura Mazda to grant him immortality like wan ī juyd-beš, Goyad Shah, Pašutan, Yašt Faryan Anoosheh <sup>58</sup>.

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<sup>57</sup> Khani G.G., Ghasemi P., & Razmjooee S. (2007). Immortals in Ancient Iranian Myths. *Transoxiana: Journal Libre de Estudios Orientales*. Vol.12. ISSN: 1666-7050.

<sup>58</sup> Ibid.



Indeed, the first known myth *ever*, the Sumerian Epic of Gilgamesh <sup>59</sup>, concerns a Sumerian King's quest to gain physical immortality through a fabled plant. He gains the plant and loses it to unforeseen circumstances. In the end, Gilgamesh decides that true immortality is for the gods, and that mortals should be content with heroic immortality – that is, with doing great deeds and being remembered for it for years to come. However, in the epic he initially seeks immortality from Utnapishtim, a human survivor of the “Great Flood” who was granted immortality from the gods. So the epic does in fact depict indefinite life spans in humans, despite the fact that Gilgamesh himself in the end does not attain it.

The Sumerian Kings list <sup>60</sup> also indicates the prominence that the concept of immortality took on in the minds of Sumerians. According to their records (which today are typically considered through the same sort of allegorical lens that most religious and mythic texts are), Alulim reigned for 28,000 years, Alalngar reigned for 36,000 years, En-men-lu-ana for 43,200 years, En-men-gal-ana for 28,800 years, Dumuzid, the Shepherd for 36,000 years, En-sipad-zid-ana for 28,800 years, En-men-dur-ana for 21,000 years, Ubara-Tutu for 18,600 years, Jushur for 1200 years, Kullassina-bel for 960 years, Nangishlishma for 670 years, En-tarah-ana for 420 years, Babum for 300 years, Puannum for 840 years, Kalibum for 960 years, Kalumum for 840 years, Zuqaqip for 900 years, Atab (or A-ba) for 600 years, Mashda for 840 years, Arwium for 720 years, Etana for 1500 years, Balih for 400 years, En-me-nuna for 660 years, Melem-Kish for 900 years, Barsal-nuna for 1200 years, Zamug for 140 years, Tizqar for 305 years, Ilku for 900 years, Iltasadum for 1200 years, En-me-barage-si (c. 2600 BCE) for 900 years, Aga of Kish for 625 years, Mesh-ki-ang-gasher of E-ana for 324 years, Enmerkar for 420 years, Lugalbanda for 1200 years, Dumuzid for 100 years, Gilgamesh for 126 years, Ur-Nungal (Gilgamesh's son) for 30 years, Udul-kalama for 15 years, La-ba'shum for 9 years, En-nun-tarah-ana for 8 years, and so on. The Sumerian kings listed thereafter begin to list reigns of 10-100 years, gradually dwindling in much the same manner as the ages of biblical personages dwindled in age progressively throughout the First Testament. Although one does still find long reigns interspersed throughout the shorter reigns, for instance in Ur-Zababa's listing, which lists him as reigning for 200 years c. 2300 BCE, preceded by Puzur-Suen who reigned for twenty-five years and Zimudar who reigned for thirty years.

Indeed, one is hard-pressed to find *any* ancient religious or mythical tradition wherein deities can age and die – the exception being the Norse mythology, where Norse gods must

<sup>59</sup> Kovacs, M.G. (1989). *The Epic of Gilgamesh*. Stanford, CA: Stanford University Press.

<sup>60</sup> Jacobsen, T. (1939). *The Sumerian King List*. London: University of Chicago Press.

consume Idun's apples in order to periodically restore their youth. The nearly-ubiquitous conception of indefinite longevity across all ancient religions and mythologies, even during periods where cross-cultural communication is thought to have been non-existent (suggesting that the concurrent conception of immortality are truly independent of one another), indicates that indefinite longevity is one of humanity's most deep-rooted, long-standing and *natural* longings – a desire that transcends cultural distance and deep historical time.

Religion (and especially those religions promising an eternal afterlife) *does* constitute a detriment to contemporary progress in life extension because they remove the central motivator for hastening progress in the field, namely the complete cessation of existence (i.e. death without an afterlife)<sup>61</sup>. If we don't consider death to really be death at all, then we lack any pressing need to do away with it. Yet at the same time humanity's religious and mythic traditions constitute perhaps the strongest historical legitimator of longevity's value and desirability, indicating humanity's deep-rooted longing for longer life in general, and indefinitely extended life spans in particular, perhaps better than any other cultural or historical heritage. Religion, insofar as regenerative medicine and rejuvenation science are concerned, is at odds with itself. Many secularists today would argue that fear of, or at least dissatisfaction with "utter death" (i.e. physical death without an afterlife) is one of the largest motivating factors for creating and sustaining a religion in the first place. Promises of an end to death *through death*, in the form of an afterlife, became so unanimously popular because humanity is and *should be* dissatisfied with death. While there may have been other motivating factors at play, I think most secular people would agree that dissatisfaction with death was one of the main motivating factors for conceiving of an afterlife. If we take this as true, then contemporary religion is ironically thwarting one of the very impulses that drove its conception in the first place. By believing in an afterlife *due to our dissatisfaction with death* we unwittingly deter the continuing development of the field that can finally put a real end to our own resented finality. Religion was created in part because we wish to avoid death, and today that very same institution slows progress in actually achieving a scientific end to involuntary death.

This problem, the fact that belief in an afterlife negates the central impetus for desiring indefinite life spans in the physical world, is particularly notable when we consider the fact that the majority of people still believe in one form of an afterlife or another. Recent polls indicate that approximately 80% of Americans and over 50% of global citizens believe in an afterlife<sup>62,63,64,65,66</sup>. If these polls are accurate, then the majority of humans are likely to see no great or

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<sup>61</sup> Cortese, F. (2013). Religion vs. Radical Longevity: Belief in Heaven is the Biggest Barrier to Eternal Life?!. *Human Destiny is to Eliminate Death: Essays, Arguments and Rants About Immortalism*. Ed. Pellissier, H. 1<sup>st</sup> ed. Center for Transhumanity. pp. 87-90.

<sup>62</sup> Associated Press-GfK. (2011). Nearly 8 in 10 Americans Believe in Angels. Retrieved from <http://www.cbsnews.com/news/poll-nearly-8-in-10-americans-believe-in-angels/>.

<sup>63</sup> Conan, N. (2010). *Do You Believe In Miracles? Most Americans Do*. Retrieved from <http://www.npr.org/templates/story/story.php?storyId=124007551>.

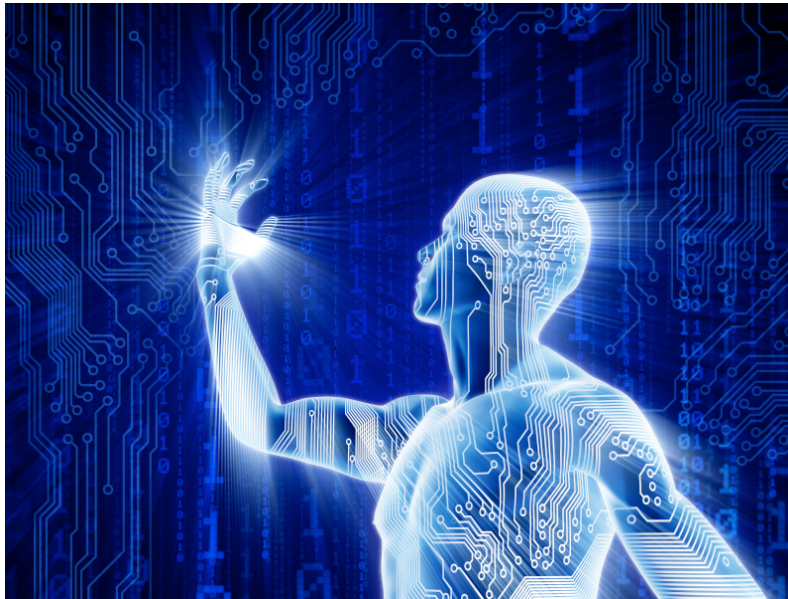
<sup>64</sup> The Barna Group, LTD. (2003) Americans Describe Their Views About Life After Death. Retrieved from <https://www.barna.org/barna-update/article/5-barna-update/128-americans-describe-their-views-about-life-after-death#.UqofzWRDvv0>.

<sup>65</sup> Adherents. (2007). 43,941 adherent statistic citations: membership and geography data for 4,300+ religions, churches, tribes, etc. Retrieved from [http://www.adherents.com/Na/Na\\_516.html](http://www.adherents.com/Na/Na_516.html).

<sup>66</sup> Cortese, F. (2013). Longevity Progress Needs Increased Lobbying, Advocacy and Activism More Than it Needs Increased Funding. *International Longevity Alliance*. Retrieved from

pressing need to significantly extend their life spans in the physical world. And while secularism has been increasing over time, and should be expected to continue increasing, every day the achievement of indefinite-longevity therapies is delayed costs us 100,000 human lives, irreversibly lost to causes that are in principle preventable and reversible. But the time it takes to make progress in the field of biomedical gerontology is a direct function of how much society demands it and expresses its desire for it. Progress in the field of life extension is a function of funding, and funding is by and large determined by how much people want something, or by how urgent a given problem is. The more we demand it and express our desire for it, the more attention and funding it will receive, and the faster it will be achieved.

We have endeavored to show that the notion of greatly extended life spans – as long as a thousand years in the case of the Christianity, Judaism and Islam, a thousand years in case of Hinduism, and nine million years in the case of Buddhism – is *not* at odds with the beliefs *or* the values of the large majority of religious and mythic traditions. We have further endeavored to show that in many cases greatly prolonged life in the physical world is actually offered as a value and reward *in and of itself* in many religious traditions as well.



Neither of these theses precludes the fact that widespread belief in an afterlife is going to almost invariably decrease the perceived necessity of ending involuntary death in the physical world. But these theses *do* help ameliorate the incorrect public perception that religion is actually *at odds with* life extension, or that life extension is directly or indirectly contrary to the values and/or core beliefs of the various religious traditions considered here. Indeed, we have attempted to substantiate the claim that, on the contrary, life extension is in certain cases neutral in regards to core religious beliefs and values while in other cases being compatible with them, and

furthermore that, in certain other significant cases cited and outlined above, life extension in the physical world actually *constitutes* a religious practice and value in the Mesopotamian, Norse, Greek, Roman, Chinese, Eastern and Abrahamic religious traditions, both through the promise of indefinite longevity in an afterlife and the promise (and in some cases practice) of life extension in the physical world.

In order to combat the arguably under informed public perception that religion is at odds with the aims of biomedical gerontology, we should cite the large body of primary literature suggesting that religion and rejuvenation are not at odds with each other, but are instead in varying instances (1) neutral with regards to each other, (2) compatible with each other and (3) actually coincident in terms of values and beliefs. We should attempt to develop communities that explore the intersections between history's philosophical, religious and mythical traditions and the contemporary field of biomedical gerontology, and which reach out to religious communities in an attempt to demonstrate via hermeneutical interpretation that rejuvenation and religion are not as at-odds with each other as they are often thought to be.

*"The idea of immortality, that like a sea has ebbed and flowed in the human heart, with its countless waves of hope and fear, beating against the shores and rocks of time and fate, was not born of any book, nor of any creed, nor of any religion. It was born of human affection, and it will continue to ebb and flow beneath the mists and clouds of doubt and darkness as long as love kisses the lips of death. It is the rainbow -- Hope shining upon the tears of grief."*

~ Robert Green Ingersoll, *The Ghosts*, 1877 ~

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